

CITY AND COUNTY OF BRISTOL



THE  
HEALTH OF BRISTOL  
IN  
1954

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3908



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# GENERAL REVIEW OF THE HEALTH OF BRISTOL 1954

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## ANNUAL REPORT 1954

I have pleasure in presenting my 25th Annual Report on the health of the City of Bristol.

This combined effort on the part of the staff of the Public Health Department will, I hope, be appreciated by the people of Bristol and we hope also by the generations to come. We have done our best to record fairly the state of health of the people of Bristol in 1954 and the services provided by the City Council for their benefit.

The report has been prepared by the heads of the different sections of the Department—doctors, nurses and other officers who are responsible for the day-to-day supervision of the services in the home and in the clinics. I have avoided the term “administration” lest it be thought that their relation to the staff is one of remote control by correspondence and that they have no direct contact with the work of the staff in the homes and clinics.

On the whole 1954 has been a good year for the City from a health point of view. There have been no serious epidemics and our principal statistics of mortality compare favourably with those of England and Wales as a whole. Thus, Bristol's infant mortality rate was 20.77 per 1,000 live births compared with 25.5 per 1,000 for England and Wales ; our death rate at all ages was 11.15 per 1,000 population compared with 11.3 per 1,000 for England and Wales and our stillbirth rate 23.35 per 1,000 total births compared with 23.4 per 1,000 for England and Wales.

Good progress has been made in the provision and organisation of health services. A new clinic for maternity and child welfare and school health purposes was opened by the Lord Mayor Alderman K. Brown, at Brooklea to serve the St. Anne's district. The Hon. W. S. Maclay, C.B., O.B.E., M.D., opened new extensions to the M.D. Occupation and Industrial Centre at Marlborough House. A further useful provision in the mental health service was the organisation at Southmead health clinic of a club and occupational therapy sessions for patients discharged from mental hospitals. Towards the end of the year the Statistical Unit at the Central Clinic came into operation. This is a joint enterprise between the City and the University Preventive Medicine Department. It will be of great value in enabling us to make the best use of the many thousands of health records we collect and also in field research work. I am also glad to be able to record a further extension in the number of health clinics at which general medical practitioners pursue their ante- and post-natal work. This development is helping considerably in the co-ordination of the maternity services in the City.

A special report has been included which gives the reader a brief summary of 25 years of port health administration ; it is the substance of a paper read at the Annual Meeting of the Port Health Association.

I have pleasure in commending to readers the comprehensive report prepared by Dr. A. L. Smallwood, School Medical Officer. It deals with all aspects of the work of the School Health Service for which the Education Committee of the City is responsible. It is also a most interesting

report and shows in a remarkable way the result of good team work both within the Department and with staff in other departments of the Corporation.

Once again I wish to express my gratitude to the staff for their most loyal co-operation ; to my deputy Dr. Wofinden, to my Chief Administrative Assistant and to my senior officers in the Department, for their loyal and enthusiastic work. The staff of the Health Department owe their best thanks to the Chairmen of the Health, Education, Welfare and other Committees of the Corporation for their encouragement and consideration ; also to the Town Clerk and the Chief Officers for their ever ready help and co-operation. This report was collated and edited by my Personal Assistant, Mr. Peter Mackintosh, B.A., to whom my best thanks are due.

Your obedient servant,

R. H. PARRY,  
*Medical Officer of Health.*

Central Health Clinic,  
Bristol 2.

## 2. SUMMARY OF VITAL STATISTICS

### Population

The Registrar-General has estimated the home population (including H.M. Forces stationed in the area) at mid-year 1954 to be 444,900, an increase of 700 over that for the previous year. The rates for 1954 are based upon this estimated figure.

The figures given in the following tables for births, stillbirths, and deaths (but not marriages) are those allocated by the Registrar-General to Bristol as registered during the respective years and corrected for inward and outward transfers according to residence.

	1953	1954
Estimated home population (mid-year) ..	444,200	<b>444,900</b>
Marriages .. .. .	3,460	<b>3,377</b>
Rate (persons married) per 1,000 population	15.58	<b>15.18</b>
Births registered during year .. .. .	6,945	<b>6,691</b>
Rate per 1,000 population .. .. .	15.63	<b>15.04</b>
Rate per 1,000 population adjusted (ACF. 1954 0.99) .. .. .	15.47	<b>14.89</b>
Stillbirths registered during year .. .. .	126	<b>160</b>
Rate per 1,000 total births .. .. .	17.82	<b>23.35</b>
Deaths registered during year .. .. .	5,146	<b>5,165</b>
Rate per 1,000 population. Crude .. .. .	11.58	<b>11.61</b>
Rate per 1,000 population adjusted (ACF. 1954 0.96) .. .. .	11.23	<b>11.15</b>
Natural increase (per 1,000 population) .. .. .	4.05	<b>3.43</b>
Deaths under one year registered during year .. .. .	152	<b>139</b>
Rate per 1,000 live births registered during year .. .. .	21.89	<b>20.77</b>
Deaths under four weeks registered during year .. .. .	105	<b>106</b>
Rate per 1,000 live births registered during year .. .. .	15.12	<b>15.84</b>
Deaths from puerperal causes registered during year .. .. .	7	<b>4</b>
Rate per 1,000 total births registered during year .. .. .	0.99	<b>0.58</b>

### Marriages

	Number of marriages during year	Rate persons married per 1,000 popn.
<b>1954</b> .. .. .	<b>3,377</b>	<b>15.18</b>
1953 .. .. .	3,460	15.58
1952 .. .. .	3,585	16.15
1951 .. .. .	3,506	15.88
1950 .. .. .	3,512	15.87
1949 .. .. .	3,783	17.20
1948 .. .. .	3,786	17.41
1947 .. .. .	4,033	18.82

**Births**

	YEAR					
	1949	1950	1951	1952	1953	1954
Total live births registered in Bristol (not corrected for residence) ... ..	8,326	7,833	7,536	7,635	7,719	<b>7,588</b>
Non-citizen registered births in Bristol (included in above) ... ..	1,005	956	897	988	1,025	<b>1,168</b>
Births registered in Bristol—citizens only ...	7,321	6,877	6,639	6,647	6,694	<b>6,420</b>
Births to Bristol citizens—registered outside the City ... ..	185	219	233	113	251	<b>271</b>
R.-G.'s corrected figure—Registered live birth (Bristol citizens) ... ..	7,506	7,096	6,872	6,760	6,945	<b>6,691</b>
Birth rate per 1,000 total population ...	17.07	16.03	15.56	15.23	15.63	<b>15.04</b>

**Illegitimacy** (Rate: 48 per 1,000 live births registered during year).

	1953	1954
Total illegitimate live births registered in Bristol (not corrected for residence) ... ..	391	<b>388</b>
Non-citizen illegitimate births registered in Bristol (included in above) ... ..	115	<b>117</b>
Non-citizen percentage of total illegitimate live births registered in Bristol ... ..	29.4%	<b>30.2%</b>
Registrar-General's total. Illegitimate registered live births (corrected for residence) ...	309	<b>318</b>
As percentage of R.-G.'s. corrected Bristol live births registered during the year ... ..	4.4%	<b>4.8%</b>

**Stillbirths** Total No. (corrected by R.G. for residence) registered during 1954—160 (1953—126). Rate: 23.4 per 1,000 total births registered.

The increase in the stillbirth rate for 1954 is in contrast to the improving trend of the previous two years (17.8 for 1953 and 20.8 for 1952). It is in fact the highest rate recorded since 1946 when it was 26.

**Deaths** Rate: (Crude) 11.61 per 1,000 population

(Adjusted 11.15 per 1,000 population (Area Comparability Factor 0.96).

During 1954 the total number of deaths actually occurring within the year was 5,693, of which 710 were non-citizens. The number of inward transfers in respect of citizens who died outside the City area was 180.

The Registrar-General's corrected figure for deaths *registered* during 1954 is 5,165 and the crude death rate is 11.61 per 1,000 population. Comparable figures of the Registrar-General for 1953—5,146 deaths and the rate—11.58.

**Natural Increase** Rate: 3.43 per 1,000 population.

	1953	1954
Bristol births registered during year ... ..	6,945	<b>6,691</b>
Bristol deaths registered during year ... ..	5,146	<b>5,165</b>
Natural increase ... ..	+1,799	<b>+1,526</b>



**Infant Mortality** (Total deaths under 1 year of age registered in 1954—139).

(Rate : 21 per 1,000 live births registered in 1954).

	1953	1954
Total deaths under one year of age registered in Bristol	214	206
Non-citizens included in above ... ..	70	77
Total infant deaths allocated to Bristol (R-G's corrected figure) ... ..	152	139
Rate per 1,000 registered live births ... ..	21.89	20.77

The infant mortality rate for 1954 was bettered only by that for 1951—20.37, the lowest ever recorded in Bristol.

	1954	1953	1952	1951	1950	1949	1948	1947
Legitimate infant mortality rate per 1,000 legitimate live births registered in the year ... ..	21	22	21	20	23	25	24	29
Illegitimate infant mortality rate per 1,000 illegitimate live births registered in the year .. ..	22	13	33	25	29	34	33	25

**Neo-Natal Deaths** (i.e. deaths under 4 weeks of age) 106 registered during 1954. Rate : 15.84 per 1,000 live births registered in 1954.

During 1954 the deaths of 155 babies during the first four weeks of life were registered in Bristol ; 54 were non-citizens. Comparable figures for the year 1953 are 151 including 48 non-citizens. After correction by the Registrar-General in respect of residence, the 1954 registered figure becomes 106, compared with 105 in 1953. The deaths in this age group, after correction, represent 76 per cent. of the total infants dying under one year of age. (69 per cent. in 1953).

Of the total neo-natal deaths in 1954 (uncorrected for transfers) 81 (52 per cent. approx.) occurred on the first day of life and 52 (34 per cent. approx.) during the remainder of the first week. In 1953 comparable figures are respectively 46 and 43 per cent.

In 1954, after correction for transfers, 54 deaths occurred on the first day and 35 in the remainder of the first week.

For 1954, of the corrected total of 106 neo-natal deaths, 6 were of illegitimate babies.

Legitimate neo-natal mortality—15.7 per 1,000 legitimate live births registered in 1954.

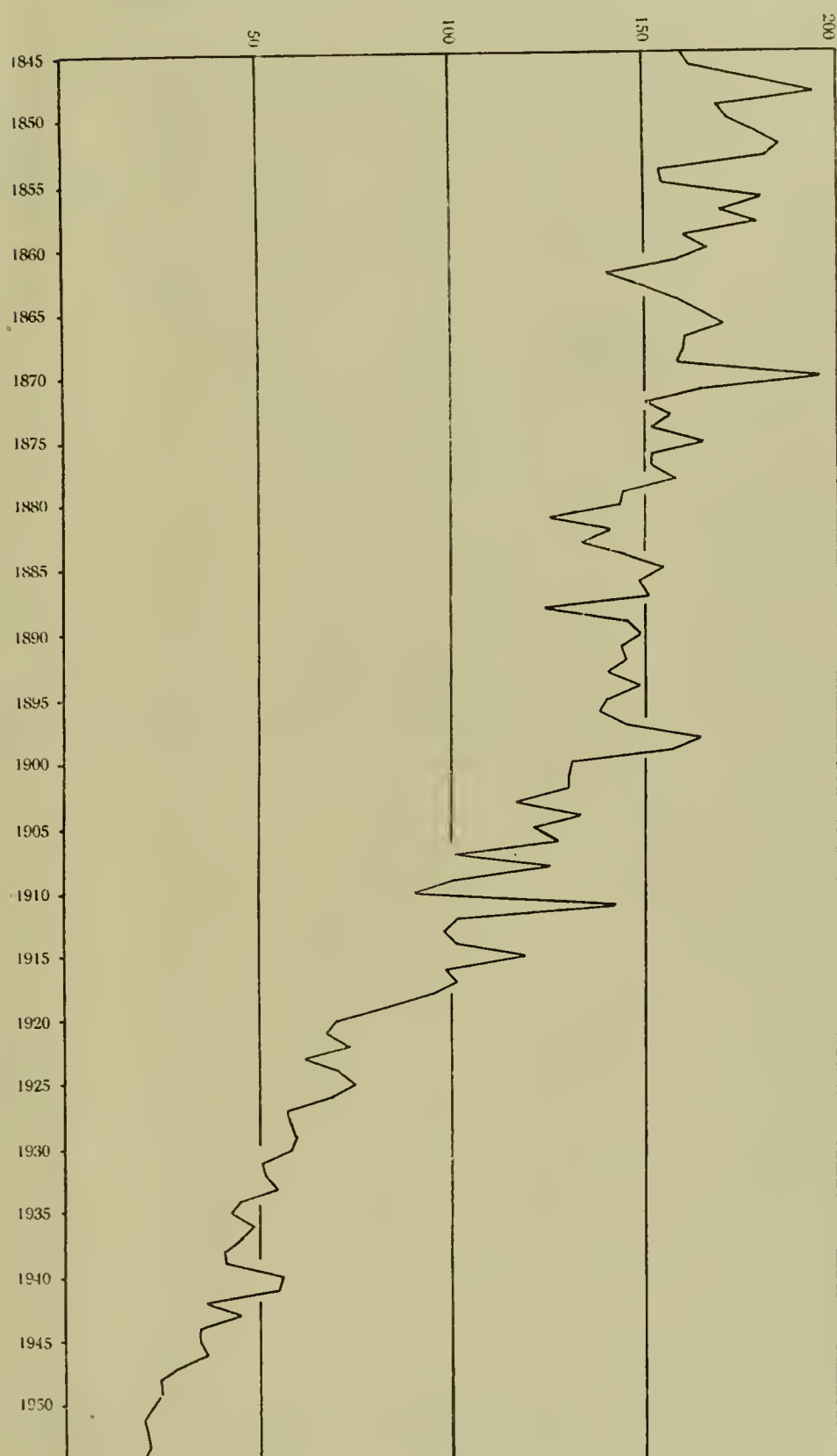
Illegitimate neo-natal mortality—18.9 per 1,000 illegitimate live births registered in 1954.

**Maternal Mortality** (Number of deaths—4). Rate : 0.584 per 1,000 total births (live and still) registered during year.

There were eleven maternal deaths registered in the City during 1954. Of these, four were of Bristol residents (as listed below), including one \* where the interval between the maternal condition and death was seven years.

#### 1954—Causes

Abortion ... ..	1
Pulmonary embolism ... ..	2
*(Chronic nephritis)—underlying cause was Toxaemia of pregnancy—7 years previously	1

**110 Years' Record of Infant Mortality in Bristol (1845-1954)****Deaths under one year of age per 1,000 live births**

## VITAL STATISTICS

**TABLE I. Supplied by the Registrar-General**  
**Population, marriages, births, deaths, natural increase, infant**  
**mortality—for Calendar Year 1954 and previous six years—**  
**BRISTOL—(Registrations during year)**

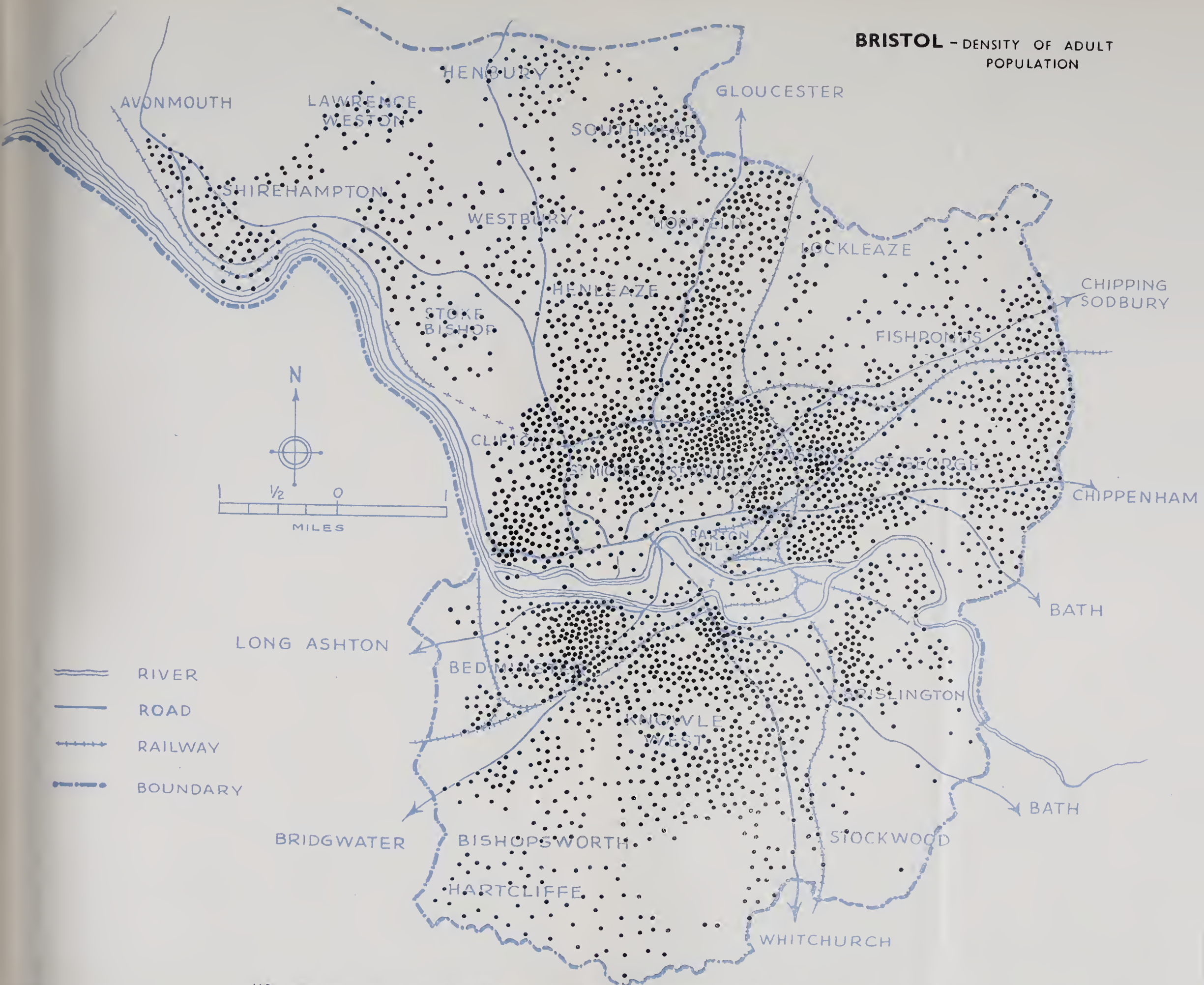
	1954	1953	1952	1951	1950	1949	1948
Estimated population (mid-year) {							
Civ. ...	—	—	—	—	—	439,740	435,000
Total ...	<b>444,900</b>	444,200	443,900	†442,700	442,600	—	—
* Constructed	—	—	—	441,650	—	—	—
Marriages							
Number ...	<b>3,377</b>	3,460	3,585	3,506	3,512	3,783	3,786
Rate persons married {							
per 1,000 pop. ... Civ. ...	<b>15.18</b>	15.58	16.15	15.84	15.87	17.21	17.41
Total ...	—	—	—	15.88	—	17.20	—
Constructed	—	—	—	—	—	—	—
Birth registrations:							
Legitimate—males ...	<b>3,298</b>	3,365	3,249	3,335	3,506	3,687	3,730
females ...	<b>3,075</b>	3,271	3,209	3,255	3,280	3,440	3,672
Illegitimate—males ...	<b>158</b>	141	156	144	143	204	225
females ...	<b>160</b>	168	146	138	167	175	204
Total ...	<b>6,691</b>	6,945	6,760	6,872	7,096	7,506	7,831
Rate per 1,000 population ...	<b>15.04</b>	15.63	15.23	15.52	16.03	17.07	18.00
Rate per 1,000 pop. (constructed)	—	—	—	15.56	—	—	—
Stillbirth registrations:							
Legitimate—males ...	<b>72</b>	64	77	72	80	77	75
females ...	<b>81</b>	55	61	70	62	72	89
Illegitimate—males ...	<b>2</b>	4	4	8	6	3	4
females ...	<b>5</b>	3	2	5	10	5	7
Total ...	<b>160</b>	126	144	155	158	157	175
Rate per 1,000 total births ...	<b>23</b>	18	21	22	22	20	22
Death registrations:							
Males ...	<b>2,583</b>	2,591	2,504	2,783	2,543	2,481	2,308
Females ...	<b>2,582</b>	2,555	2,467	2,840	2,539	2,403	2,268
Total ...	<b>5,165</b>	5,146	4,971	5,623	5,082	4,884	4,576
Rate per 1,000 population ...	<b>11.61</b>	11.58	11.20	12.70	11.48	11.11	10.52
Rate per 1,000 pop. (constructed)	—	—	—	12.73	—	—	—
Natural increase per 1,000 population	<b>3.43</b>	4.05	4.03	2.82	4.55	5.96	7.48
" " " (constructed)	—	—	—	2.83	—	—	—
Deaths under one year (registered):							
Legitimate ...	<b>132</b>	148	135	133	156	179	178
Rate per 1,000 legitimate live births	<b>21</b>	22	21	20	23	25	24
Illegitimate ...	<b>7</b>	4	10	7	9	13	14
Rate per 1,000 illegitimate live births	<b>22</b>	13	33	25	29	34	33
Total deaths ...	<b>139</b>	153	145	140	165	192	192
Rate per 1,000 live births ...	<b>21</b>	22	21	20	23	26	25
Deaths under four weeks:							
Total deaths ...	<b>106</b>	105	102	92	112	133	119
Rate per 1,000 live births ...	<b>16</b>	15	15	13	16	18	15
Diarrhoea and enteritis (under two years):							
Deaths ...	<b>1</b>	3	2	4	2	5	3
Rate per 1000 live births ...	<b>0.15</b>	0.43	0.30	0.58	0.28	0.66	0.38
Maternal mortality:							
Deaths from:—							
Sepsis of pregnancy, childbirth and the puerperium ...	<b>1</b>	1	—	—	1	—	—
Abortion with toxæmia ...	<b>1</b>	1	—	—	—	—	—
Other toxæmias of pregnancy and the puerperium ...	<b>1</b>	—	4	1	3	—	—
Hæmorrhage of pregnancy and childbirth ...	—	1	—	1	—	—	—
Abortion without mention of sepsis or toxæmia ...	—	—	1	—	1	—	—
Abortion with sepsis ...	—	2	1	1	—	—	—
Other complications of pregnancy, childbirth and the puerperium ...	<b>1</b>	2	1	4	2	—	—
Total deaths ...	<b>4</b>	7	7	7	7	8	6
Rate per 1,000 total births ...	<b>0.584</b>	0.989	1.01	0.996	0.96	1.04	0.74

\* The Registrar-General's constructed population for use in the computation of rates for the year which combine "before change" and "after change" figures.

† Relates to the area as constituted at midsummer (subsequent to boundary changes).



# BRISTOL - DENSITY OF ADULT POPULATION



N.B.—Only persons over 21 years are shown. In drawing any conclusions from this map, it must be borne in mind that the areas where the child population is highest, by no means coincide with those of highest adult population.



**TABLE 2. Supplied by the Registrar-General**  
**Birth-rates, death-rates, analysis of mortality, maternal mortality**  
**and case-rates for certain infectious diseases in the year 1954**

(Provisional figures based on quarterly returns)

										Bristol	England and Wales
										Rates per 1,000 home population	
Birth registrations:										15.04	15.2
Live	...	...	...	...	...	...	...	...	...	23.35(a)	23.4(a)
Still	...	...	...	...	...	...	...	...	...		
Death registrations:										11.61	11.3
ALL CAUSES (Crude)	...	...	...	...	...	...	...	...	...	11.15	
(Adjusted)	...	...	...	...	...	...	...	...	...		0.00
Typhoid and paratyphoid fevers	...	...	...	...	...	...	...	...	...	—	0.01
Whooping cough	...	...	...	...	...	...	...	...	...	—	0.00
Diphtheria	...	...	...	...	...	...	...	...	...	—	0.18
Tuberculosis	...	...	...	...	...	...	...	...	...	0.17	0.05
Influenza	...	...	...	...	...	...	...	...	...	0.04	—
Smallpox	...	...	...	...	...	...	...	...	...	—	0.00
Acute poliomyelitis (including polioencephalitis)	...	...	...	...	...	...	...	...	...	0.00	0.48
Pneumonia	...	...	...	...	...	...	...	...	...	0.54	
Notifications (corrected):										0.00	0.00
Typhoid fever	...	...	...	...	...	...	...	...	...	0.01	0.03
Paratyphoid	...	...	...	...	...	...	...	...	...	0.04	0.06
Meningococcal infection	...	...	...	...	...	...	...	...	...	1.19	2.39
Scarlet fever	...	...	...	...	...	...	...	...	...	2.50	—
Whooping cough	...	...	...	...	...	...	...	...	...	—	0.00
Diphtheria	...	...	...	...	...	...	...	...	...	0.20	0.12
Erysipelas	...	...	...	...	...	...	...	...	...	—	—
Smallpox	...	...	...	...	...	...	...	...	...	0.49	3.2
Measles	...	...	...	...	...	...	...	...	...	0.94	0.0
Pneumonia	...	...	...	...	...	...	...	...	...		
Acute poliomyelitis (including polioencephalitis)—	...	...	...	...	...	...	...	...	...	0.06	0.02
Paralytic	...	...	...	...	...	...	...	...	...	0.01	0.01
Non-paralytic	...	...	...	...	...	...	...	...	...	0.35	0.20
Food poisoning	...	...	...	...	...	...	...	...	...	28.90(a)	
Puerperal pyrexia	...	...	...	...	...	...	...	...	...		
										Rates per 1,000 live births	
Deaths under one year of age										20.77	25.5(b)
Deaths from diarrhoea and enteritis (under 2 years of age)										0.15	0.8
Maternal Mortality:										Rate per 1,000 total birth (i.e., live and still)	
										Rate per million women aged 15 to 44 (England and Wales)	
Maternal causes—excluding abortion											
Due to abortion	...	...	...	...	...	...	...	...	...	3	0.44
Total maternal mortality	...	...	...	...	...	...	...	...	...	402	0.57
	...	...	...	...	...	...	...	...	...	76	0.11
	...	...	...	...	...	...	...	...	...	478	0.69

(a)—per 1,000 TOTAL births (live and still).

(b)—per 1,000 related live births.

**TABLE 3. Compiled from figures supplied by the Registrar-General****BRISTOL, total deaths by cause and age registered during  
Calendar Year 1954**

DISEASE	Sex	All ages	0-1	1-5	5-15	15-45	45-65	65 plus
All Causes ... ..	M F	2,583 2,582	88 51	12 10	12 10	143 112	748 464	1,580 1,935
1. T.B. Respiratory ... ..	M F	41 26	— —	— —	— —	12 13	23 9	6 4
2. T.B. Other ... ..	M F	3 4	— —	1 1	1 —	— 3	1 —	— —
3. Syphilitic Disease ... ..	M F	4 1	— —	— —	— —	1 —	3 —	— 1
4. Diphtheria ... ..	M F	— —	— —	— —	— —	— —	— —	— —
5. Whooping Cough ... ..	M F	— —	— —	— —	— —	— —	— —	— —
6. Meningococcal Infection ... ..	M F	1 1	1 1	— —	— —	— —	— —	— —
7. Acute Poliomyelitis ... ..	M F	1 —	— —	— —	1 —	— —	— —	— —
8. Measles ... ..	M F	— —	— —	— —	— —	— —	— —	— —
9. Other Infective and Parasitic Disease	M F	7 3	— —	— —	1 —	1 1	2 2	3 —
10. Malignant Neoplasm of Stomach ...	M F	86 68	— —	— —	— —	3 4	36 21	47 43
11. " " " Lung, Bronchus	M F	167 31	— —	— —	— —	6 3	103 12	58 16
12. " " " Breast ...	M F	1 91	— —	— —	— —	— 7	1 42	— 42
13. " " " Uterus ...	F	44	—	—	—	3	19	22
14. " Other & Lymph. Neoplasms	M F	220 203	— —	1 —	— 1	13 12	67 53	139 137
15. Leukaemia, Aleukaemia ... ..	M F	11 5	— —	— —	— 1	4 1	3 2	4 1
16. Diabetes ... ..	M F	14 14	— —	— —	— —	— —	3 1	11 13
17. Vascular Lesions of Nervous System ...	M F	296 461	1 —	— —	1 —	8 9	70 87	216 365
18. Coronary Disease, Angina ... ..	M F	437 284	— —	— —	— —	16 4	157 43	264 237
19. Hypertension with Heart Disease ...	M F	117 116	— —	— —	— —	2 —	29 14	86 102
20. Other Heart Disease ... ..	M F	309 465	— —	— —	1 —	7 12	44 40	257 413
21. Other Circulatory Disease ... ..	M F	156 206	— —	— —	— —	1 1	25 12	130 193
22. Influenza ... ..	M F	8 8	— —	— —	— —	1 1	5 3	2 4
23. Pneumonia (including Pneu. of Newborn)	M F	111 130	14 6	1 1	1 1	3 5	20 17	72 100
24. Bronchitis ... ..	M F	128 57	— —	— —	— —	— 1	38 8	90 48
25. Other Diseases of Respiratory System	M F	57 19	— —	1 —	— 1	2 1	26 3	28 14
26. Ulcer of Stomach and Duodenum ...	M F	39 14	— —	— —	— —	1 1	16 —	22 13
27. Gastritis, Enteritis and Diarrhoea ...	M F	9 9	1 1	— —	— —	1 1	1 3	6 4
28. Nephritis and Nephrosis ... ..	M F	24 23	— —	— —	— 1	6 1	7 11	11 10
29. Hyperplasia of Prostate ... ..	M	40	—	—	—	—	6	34
30. Pregnancy, Childbirth, Abortion ...	F	4	—	—	—	3	1	—
31. Congenital Malformations ... ..	M F	24 16	18 10	2 2	— 1	1 —	2 3	1 —
32. Other Defined and Ill-defined Diseases	M F	160 203	53 32	2 1	1 1	12 12	29 42	63 115
33. Motor Vehicle Accidents ... ..	M F	25 11	— —	2 2	2 1	9 3	6 1	6 4
34. All other Accidents ... ..	M F	48 35	— 1	2 3	2 2	21 3	7 3	16 23
35. Suicide ... ..	M F	36 29	— —	— —	— —	12 7	16 12	8 10
36. Homicide and Operations of War ...	M F	3 1	— —	— —	1 —	— —	2 —	— 1



**TABLE 4. Compiled from figures supplied by Registrar-General**  
**Principal causes of death registered during Calendar Year**  
**1954—BRISTOL**

Death Rate per 1,000 Population	Disease	No. Deaths 1954	Per cent of all Deaths
·151	1. T.B. Respiratory .. .. .	67	1·30
·016	2. T.B. Other .. .. .	7	·14
·011	3. Syphilitic disease .. .. .	5	·10
—	4. Diphtheria .. .. .	—	—
—	5. Whooping cough .. .. .	—	—
·004	6. Meningococcal infection .. .. .	2	·04
·002	7. Acute poliomyelitis .. .. .	1	·02
—	8. Measles .. .. .	—	—
·023	9. Other infective and parasitic disease	10	·19
·346	10. Malignant neoplasm of stomach ..	154	2·98
·445	11. " " " lung, bronchus	198	3·83
·207	12. " " " breast ..	92	1·78
·099	13. " " " uterus ..	44	·85
·951	14. " other and lymph. neoplasms	423	8·19
·036	15. Leukaemia, aleukaemia .. .. .	16	·31
·063	16. Diabetes .. .. .	28	·54
1·702	17. Vascular lesions of nervous system ..	757	14·66
1·621	18. Coronary disease, angina .. .. .	721	13·96
·524	19. Hypertension with heart disease ..	233	4·51
1·740	20. Other heart disease .. .. .	774	14·98
·814	21. " circulatory disease .. .. .	362	7·01
·036	22. Influenza .. .. .	16	·31
·542	23. Pneumonia (including pneumonia of new-born) .. .. .	241	4·67
·416	24. Bronchitis .. .. .	185	3·58
·171	25. Other diseases of respiratory system	76	1·47
·119	26. Ulcer of stomach and duodenum ..	53	1·03
·040	27. Gastritis, enteritis and diarrhoea ..	18	·35
·106	28. Nephritis and nephrosis .. .. .	47	·91
·090	29. Hyperplasia of prostate .. .. .	40	·77
·009	30. Pregnancy, childbirth, abortion ..	4	·08
·090	31. Congenital malformations .. .. .	40	·77
·816	32. Other defined and ill-defined diseases	363	7·03
·081	33. Motor vehicle accidents .. .. .	36	·70
·187	34. All other accidents .. .. .	83	1·61
·146	35. Suicide .. .. .	65	1·26
·009	36. Homicide and operations of war ..	4	·08
11·61	All Causes .. .. .	5,165	

**TABLE 5. Deaths (corrected for transfers) occurring within the years 1953 and 1954 (Local figures)**

Code No.		1953		1954	
		TOTAL	Including	TOTAL	1. 1-1 lin.
001-008	T.B. of respiratory system ... ..	92		62	
010-019	T.B. other ... ..	14		8	
020-029	Syphilis and its sequelae ... ..	13		4	
030-039	Gonococcal infection and other V.D. ... ..	—		—	
040-049	Infectious disease in intestinal tract ... ..	—		—	
050-064	Other bacterial diseases ... ..	6		3	
070-074	Spirochaetal diseases (except syphilis) ... ..	—		—	
080-096	Disease attributed to viruses ... ..	12		8	
100-108	Typhus and other rickettsial diseases ... ..	—		—	
110-117	Malaria ... ..	—		—	
120-138	Other infective and parasitic diseases ... ..	—		—	
140-148	Malignant neoplasm of buccal cavity and pharynx	16		20	
150-159	Malignant neoplasm digestive organs and peritoneum	357		378	
151	Malignant neoplasm stomach ... ..		129		152
153	Malignant neoplasm large intestine (except rectum)		94		85
154	Malignant neoplasm rectum ... ..		50		58
160-165	Malignant neoplasm respiratory system ... ..	168		212	
170-181	Malignant neoplasm breast & genito-urinary system	208		222	
170	Malignant neoplasm breast ... ..		75		90
171/4	Malignant neoplasm uterus ... ..		34		43
175	Malignant neoplasm ovary, fallopian tube and broad ligament ... ..		24		19
177	Malignant neoplasm prostate ... ..		34		34
180/1	Malignant neoplasm kidney, bladder and other urinary organs ... ..		30		30
190-199	Malignant neoplasm other and unspecified sites ...	51		52	
200-205	Neoplasms of lymphatic & haematopoietic tissues	34		35	
210-229	Benign neoplasm ... ..	10		9	
230-239	Neoplasm of unspecified nature ... ..	13		15	
240-245	Allergic disorders ... ..	23		21	
250-254	Diseases of thyroid gland ... ..	4		8	
260	Diabetes mellitus ... ..	34		31	
270-277	Diseases of other endocrine glands ... ..	2		1	
280-289	Avitaminoses, and other metabolic diseases ...	6		4	
290-299	Diseases of blood-forming organs ... ..	15		23	
300-309	Psychoses ... ..	11		3	
310-318	Psychoneurotic disorders ... ..	—		—	
320-326	Disorders of character, behaviour and intelligence	1		1	
330-334	Vascular lesions affecting central nervous system ...	634		718	
331	Cerebral haemorrhage ... ..		299		320
332	Cerebral embolism and thrombosis ... ..		301		330
340-345	Inflammatory diseases of central nervous system ...	20		13	
350-357	Other diseases of central nervous system ... ..	57		49	
360-369	Diseases of nerves and peripheral ganglia ... ..	3		—	
370-379	Inflammatory diseases of eye ... ..	—		—	
380-389	Other diseases and conditions of eye ... ..	—		—	
390-398	Diseases of ear and mastoid process ... ..	—		—	
400-402	Rheumatic fever ... ..	4		—	
410-416	Chronic rheumatic heart disease ... ..	106		108	
420-422	Arteriosclerotic and degenerative heart disease ...	1301		1335	
420	Arteriosclerotic heart disease, including coronary disease ... ..		647		726
422	Other myocardial degeneration ... ..		630		598
430-434	Other diseases of the heart ... ..	75		57	
440-447	Hypertensive disease ... ..	309		322	
440/3	Hypertensive heart disease ... ..		250		262
450-456	Disease of arteries ... ..	242		260	
460-468	Diseases of veins and other diseases of circulatory system ... ..	28		33	

TABLE 6 Showing Population, Birth-Rates, Death-Rates, Zymotic Death-Rates, Infant and Maternal Mortality Rates of the 20 large towns of England and Wales for 1954.

	Birmingham	Bradford	Bristol	Cardiff	Coventry	Croydon	Kingston upon Hull	Leeds	Leicester	Liverpool	Manchester	Newcastle upon Tyne	Nottingham	Plymouth	Portsmouth	Salford	Sheffield	Southampton	Stoke-on-Trent	Sunderland
R.G.'s estimated population ...	1,117,700	286,500	444,900	248,000	264,600	249,800	300,000	507,200	287,300	786,100	699,000	286,500	311,500	217,500	243,600	171,500	503,400	194,300†	274,100	181,800
Comparability factor—																				
(a) births ...	0.94	1.00	0.99	0.94	0.95	0.99	0.96	0.98	0.99	0.92	0.95	0.95	0.95	1.02	1.02	0.95	0.99	0.98	0.94	0.94
b) deaths ...	1.14	0.97	0.96	1.07	1.27	0.90	1.15	1.08	1.02	1.20	1.13	1.10	1.09	1.02	0.98	1.16	1.06	1.03	1.24	1.16
Crude birth rate per 1,000 population ...	16.36	16.4	15.04	18.11	15.76	14.3	18.3	15.0	15.36	20.02	16.94	16.95	16.05	16.46	15.23	16.72	13.64	16.69	15.6	19.7
Birth rate as adjusted by factor ...	15.378	16.4	14.89	17.02	14.8	14.2	17.6	14.7	15.21	18.42	16.10	16.10	15.24	16.79	15.53	15.88	13.50	16.36	14.7	18.5
Crude death rate per 1,000 population ...	10.64	14.78	11.61	11.58	8.2	10.6	10.7	11.3	11.28	11.38	12.20	11.27	10.61	10.79	10.76	12.02	11.56	9.60	11.0	10.7
Death rate as adjusted by factor ...	12.130	14.34	11.15	12.39	10.4	9.5	12.3	12.2	11.51	13.65	13.78	12.40	11.56	11.01	10.54	13.94	12.26	9.89	13.6	12.4
Infant mortality rate per 1,000 live births ...	24.23	31.4	20.77	34.06	30.4	19.0	33.9	26.0	27.19	30.81	29.47	25.53	24.35	28.21	23.71	30.35	23.88	23.59	33.0	29.4
Neonatal mortality rate per 1,000 live births ...	16.79	20.0	15.84	21.82	22.0	14.0	19.3	17.8	17.45	20.71	20.01	18.32	14.78	19.83	14.01	19.53	15.87	16.26	23.87	19.0
Stillbirth rate per 1,000 total births ...	21.62	24.9	23.35	25.39	29.9	22.2	27.6	24.2	23.24	24.78	31.80	25.48	19.79	24.52	24.96	24.83	24.16	23.05	31.5	21.9
Maternal mortality rate per 1,000 total births	0.803	0.42	‡0.58	1.30	1.2	0.82	0.71	0.64	0.44	0.49	0.49	0.20	0.59	1.09	1.31‡	1.36	0.43	0.31	1.59	—
Tuberculosis rates per 1,000 population—																				
(a) Primary notifications—																				
Respiratory ...	0.99	0.92	0.868	1.19	1.6	0.845	1.15	0.93	0.947	1.44	0.96	1.50	1.29	1.09	0.82	0.939	0.97	1.330	1.084	1.19
Non-respiratory ...	0.12	0.12	0.110	0.24	0.16	0.108	0.11	0.16	0.150	0.18	0.15	0.19	0.08	0.12	0.07	0.152	0.13	0.176	0.109	0.16
(b) Deaths—																				
Respiratory ...	0.20	0.11	0.151	0.30	0.15	0.112	0.25	0.16	0.237	0.295	0.27	0.27	0.23	0.14	0.156	0.227	0.179	0.266	0.27	0.25
Non-respiratory ...	0.01	0.02	0.016	0.02	0.015	0.016	0.02	0.01	0.028	0.015	0.03	0.03	0.01	0.01	0.03	0.012	0.028	0.011	0.022	0.02
*DEATH RATES PER 1,000 POPULATION FROM:—																				
Cancer (all forms including leukaemia and aleukaemia) ...	2.05	2.30	2.084	2.06	1.5	1.94	1.98	2.03	2.064	2.01	2.24	1.93	1.90	1.83	1.98	2.397	2.22	2.022	1.966	2.06
Meningococcal infections	0.00	—	0.00	0.004	—	0.00	0.01	0.005	0.014	0.01	0.00	—	0.01	0.00	0.01	—	0.01	0.011	0.018	0.02
Whooping cough ...	0.01	—	—	—	—	—	0.00	—	—	0.006	0.01	0.007	—	—	0.01	0.006	0.01	0.005	—	—
Influenza ...	0.03	0.12	0.04	0.032	0.019	0.02	0.07	0.03	0.010	0.019	0.05	0.063	0.03	0.00	0.02	0.035	0.03	0.016	0.044	0.02
Measles ...	—	—	—	—	—	—	—	—	—	0.0038	0.00	—	0.00	—	—	0.012	—	—	0.0146	—
Acute poliomyelitis and encephalitis ...	0.00	—	0.00	—	0.004	0.00	0.01	—	0.0035	0.000	0.00	—	—	0.00	—	—	0.00	—	—	0.01
Diarrhoea (under 2 yrs.)	0.01	0.02	0.00	0.048	0.012	0.00	0.02	0.02	0.010	0.01	0.02	0.007	0.00	0.04	0.02	—	0.02	0.016	0.219	0.02
Diarrhoea (under 2 yrs.) per 1,000 live births	0.71	1.30	0.15	2.67	0.7	0.28	1.28	1.05	0.680	0.57	1.01	0.41	0.2	2.51	1.08	—	1.46	0.956	1.404	0.84

Where no deaths have occurred at all, a "dash" is inserted.

† In calculating these rates a population figure of 187,950 is used, which is a working population taking into account the boundary change on 1st April, 1954.

‡ Includes one death (Portsmouth) with interval of 30 years between pregnancy and death and one death (Bristol) with seven-year interval.





TABLE 5.—continued.

Code No.		1953		1954	
		TOTAL	Including	TOTAL	Including
470-475	Acute upper respiratory infections ... ..	—		1	
480-483	Influenza ... ..	69		16	
490-493	Pneumonia (4 weeks plus) ... ..	256		220	
500-502	Bronchitis ... ..	245		187	
510-527	Other diseases of respiratory system ... ..	80		73	
530-539	Diseases of buccal cavity and oesophagus ... ..	2		1	
540-545	Diseases of stomach and duodenum ... ..	55		56	
550-553	Appendicitis ... ..	7		3	
560-561	Hernia of abdominal cavity ... ..	13		20	
570-578	Other diseases of intestines and peritoneum ... ..	49		36	
580-587	Diseases of liver, gallbladder and pancreas ... ..	25		44	
590-594	Nephritis and nephrosis ... ..	47		48	
600-609	Other diseases of urinary system ... ..	28		37	
610-617	Diseases of male genital organs ... ..	30		40	
620-626	Diseases of breast, ovary, fallopian tube and parametrium ... ..	2		1	
630-637	Diseases of uterus and other female genital organs ... ..	5		—	
640-649	Complications of pregnancy ... ..	2		—	
650-652	Abortion ... ..	2		1	
660	Delivery without complication ... ..	—		—	
670-678	Delivery with specified complication ... ..	2		1	
680-689	Complications of the puerperium ... ..	1		2	
690-698	Infections of skin and subcutaneous tissue ... ..	1		1	
700-716	Other diseases of skin and subcutaneous tissue ... ..	6		3	
720-727	Arthritis and rheumatism, except rheumatic fever ... ..	19		14	
730-738	Osteomyelitis and other diseases of bone and joint ... ..	2		6	
740-749	Other diseases of musculoskeletal system ... ..	1		3	
750-759	Congenital malformations ... ..	52		39	
760-769	Birth injuries, asphyxia and infections of newborn ... ..	67		73	
763	Pneumonia of the newborn ... ..		6		6
770-776	Other diseases peculiar to early infancy ... ..	13		10	
780-789	Symptoms referable to systems or organs ... ..	5		2	
790-795	Senility and ill-defined diseases ... ..	26		27	
E800-802	Railway accidents ... ..	2		4	
E810-825	Motor vehicle traffic accidents ... ..	34		35	
E830-835	Motor vehicle non-traffic accidents ... ..	1		1	
E840-845	Other road vehicle accidents ... ..	3		4	
E850-858	Water transport accidents ... ..	2		—	
E860-866	Aircraft accidents ... ..	—		1	
E870-888	Accidental poisoning by solid and liquid substances ... ..	4		4	
E890-899	Accidental poisoning by gases and vapours ... ..	9		5	
E900-904	Accidental falls ... ..	34		42	
E910-936	Other accidents ... ..	23		19	
E940-946	Complications due to nontherapeutic medical and surgical procedures ... ..	—		—	
E950-959	Therapeutic misadventure and late complications of therapeutic procedures ... ..	2		1	
E960-965	Late effects of injury and poisoning ... ..	—		—	
E970-979	Suicide and self-inflicted injury ... ..	50		65	
E980-985	Homicide and injury purposely inflicted by other persons ... ..	3		2	
E990-999	Injury resulting from operations of war ... ..	—		1	
	TOTALS ... ..	5148		5163	

**TABLE 7 Showing Population, Birth-Rates, Death-Rates, Zymotic Death-Rates, Infant and Maternal Mortality Rates of London County Council, Glasgow, Edinburgh and Bristol for 1954.**

	London County Council	Glasgow	Edinburgh	Bristol
Registrar General's estimated population ...	3,322,000	1,084,700	469,297	<b>444,900</b>
Comparability factor : (a) Births ...	0·87	Not in use	—	<b>0·99</b>
(b) Deaths ...	0·99	—	—	<b>0·96</b>
Crude birth rate per 1,000 population ...	15·24	19·3	15·5	<b>15·04</b>
Birth rate as adjusted by factor ...	13·26	—	—	<b>14·89</b>
Crude death rate per 1,000 population ...	10·68	11·8	12·9	<b>11·61</b>
Death rate as adjusted by factor ...	10·57	—	—	<b>11·15</b>
Infantile mortality rate per 1,000 live births	20·7	35	25	<b>20·77</b>
Neonatal mortality rate per 1,000 live births	15·1	21	19	<b>15·84</b>
Stillbirth rate per 1,000 total births ...	19·8	29	21	<b>23·35</b>
Maternal mortality rate per 1,000 total births	0·66	0·07	0·1	<b>0·58</b>
Tuberculosis rates per 1,000 population—				
(a) Primary notifications—Respiratory ...	1·27	2·03	1·70	<b>0·87</b>
—Non-respiratory ...	0·12	0·22	0·18	<b>0·11</b>
(b) Deaths —Respiratory ...	0·18	0·387	0·19	<b>0·15</b>
—Non-respiratory ...	0·02	0·033	0·01	<b>0·02</b>
<b>*Death Rates per 1,000 population from:—</b>				
Cancer (all forms, including leukaemia and				
aleukaemia) ...	2·31	2·063	2·45	<b>2·08</b>
Meningococcal infections ...	0·01	0·015	0·01	<b>0·00</b>
Whooping cough ...	0·00	0·006	0·01	—
Influenza ...	0·02	0·024	0·04	<b>0·04</b>
Measles ...	0·00	0·004	0·00	—
Acute poliomyelitis and encephalitis ...	0·00	0·003	0·00	<b>0·00</b>
Diarrhoea (under 2 years) ...	0·02	0·030	0·01	<b>0·00</b>
Diarrhoea (under 2 years) per 1,000 live births	1·28	1·57	0·96	<b>0·15</b>
		(excluding diarrhoea of the new-born)		

From information collected by Liverpool County Borough.

\* Where no deaths have occurred at all, a "dash" is inserted. Where the number of deaths is too small to express as a rate, the figures 0·00 are inserted.

TABLE 8. Notifiable cases during 1954 (Port Cases—Nil). Local figures.

Notifiable Diseases	Notifications							Removed to hospital		Notified in each quarter				Attack rate per 1,000 population	Deaths (corrected for transfers) not necessarily relevant to notifications of 1954						
	At all ages	At ages—years :																			
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	No.	%	1st	2nd	3rd		4th	All ages	Under 1	1 to 5	5 to 15	15 to 45	45 to 65
Diphtheria ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas ...	88	—	1	2	18	43	24	38	43	26	22	18	22	0.198	—	—	—	—	—	—	—
Scarlet fever ...	530	170	336	13	9	—	—	251	47	190	160	74	106	1.191	—	—	—	—	—	—	—
Paratyphoid ...	3	—	1	1	—	1	—	1	33	—	1	1	1	0.007	—	—	—	—	—	—	—
Typhoid ...	1	—	—	—	1	—	—	—	—	—	—	—	1	0.002	—	—	—	—	—	—	—
Meningococcal infection ...	17	4	4	—	3	—	—	13	76	7	3	2	5	0.038	2	2	—	—	—	—	—
Poliomyelitis (including polioencephalitis) ...	30	11	10	2	5	1	1	28	93	13	2	11	4	0.067	1	—	1	—	—	—	—
Pneumonia ...	416	13	41	26	97	116	77	169	41	154	86	63	113	0.935	241	20	2	8	37	172	—
Malaria ...	4	—	—	4	—	—	—	2	50	1	1	1	1	0.009	—	—	—	—	—	—	—
Dysentery ...	460	15	155	14	61	13	19	60	13	162	160	113	25	1.034	—	—	—	—	—	—	—
Acute infectious encephalitis	5	—	1	1	3	—	—	1	20	—	—	1	4	0.011	—	—	—	—	—	—	—
Puerperal pyrexia* (corrected) ...	243 } 198 }	—	—	102	140	1	—	—	—	38	63	85	57	—	—	—	—	—	—	—	—
Ophthalmia neonatorum ...	19	19	—	—	—	—	—	1	—	3	6	6	4	—	—	—	—	—	—	—	—
Measles ...	217	12	114	90	1	—	—	5	2	22	20	84	91	0.488	—	—	—	—	—	—	—
Whooping cough ...	1114	133	617	351	4	7	1	95	9	379	331	236	168	2.504	—	—	—	—	—	—	—
Acute rheumatism (to 15 yrs.)	41	—	1	38	(2)	—	—	7	17	12	10	9	10	—	—	—	—	—	—	—	—
Food poisoning ...	157	11	25	26	58	21	14	9	6	19	23	86	29	0.353	—	—	—	—	—	—	—

\*24 cases occurred at home of which 6 were subsequently removed to hospital. No deaths were directly attributed to puerperal pyrexia.

TABLE 9. Tuberculosis (including Port cases). Local figures

		CASES												DEATHS (corrected for transfers) (R.G. figs. for 1954)																		
		At all ages	Un-der one	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	65 and plus	Quarters				At all ages	Un-der one	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	65 and plus	Death rate				
													1st	2nd	3rd	4th																
Pulmonary tuberculosis:		386	2	6	20	15	58	48	87	49	54	26	21	81	95	104	106		67	—	—	—	—	—	—	—	—	—	—	—	10	0.151
Cases notified ...	...																															
Other cases*	...	81	—	—	—	—	3	22	26	15	4	7	4	12	25	23	21															
Non-pulmonary tuberculosis:																																
Cases notified ...	...	49	—	4	4	3	7	8	15	—	1	1	6	15	10	12	12		7	—	2	1	—	—	—	—	—	—	—	—	—	0.016
Other cases*	...	9	—	1	1	1	—	1	3	—	—	2	—	—	6	2	1															
Total ...	1954	525	2	11	25	19	68	79	131	64	59	36	31	108	136	141	140		74	—	2	1	—	—	—	—	—	—	—	—	10	0.167
Total ...	1953	549	1	26	23	13	53	91	121	73	40	46	32	136	152	130	131		105	—	3	—	—	—	—	—	—	—	—	—	17	0.236
	1952	642	1	26	26	27	78	87	152	96	62	60	37	167	156	160	159		105	1	2	1	—	—	—	—	—	—	—	—	20	0.237
	1951	668	4	27	29	31	76	112	136	83	87	53	30	146	204	169	149		165	1	3	1	2	6	8	23	34	33	44	37	22	0.372
	1950	558	4	30	30	23	76	75	119	77	54	49	21	152	165	119	122		200	1	6	2	—	5	18	30	35	44	37	22	0.452	
	1949	635	4	20	31	24	83	95	132	93	68	52	33	186	158	157	134		217	1	6	7	1	10	20	38	39	37	38	20	0.49	
	1948	635	3	33	45	27	86	100	84	73	47	27	27	141	178	167	149		238	3	9	3	1	12	18	40	49	43	33	27	0.55	
	1947	618	7	30	27	27	92	111	123	76	65	40	20	160	167	137	154		276	4	10	7	3	17	29	48	48	41	54	15	0.64	
	1946	692	4	28	40	29	104	105	140	92	71	52	27	163	204	161	164		265	4	10	4	7	19	21	51	41	41	40	27	0.64	
	1945	632	4	29	41	28	85	96	136	75	55	58	25	173	168	138	153		297	4	11	3	10	15	32	53	55	41	54	19	0.72	
	1944	648	3	19	27	35	97	103	119	108	71	42	24	165	177	167	139		256	3	8	4	1	15	32	53	49	34	37	20	0.63	
	1943	717	10	16	29	31	90	122	161	96	87	53	22	202	169	160	186		305	10	14	7	3	22	29	66	49	48	42	15	0.82	
	1942	587	4	12	10	30	29	59	113	103	94	78	55	153	152	128	154		264	6	11	3	6	2	21	30	42	53	47	43	0.70	
	1941	588	7	33	30	21	89	80	113	91	71	37	16	144	167	121	156		310	5	11	7	4	29	32	65	60	43	35	19	0.86	
	1940	564	5	40	44	20	81	65	113	85	57	35	19	157	179	120	108		273	2	16	4	3	24	36	44	47	52	36	9	0.66	

\* Cases coming to the knowledge of the M.O.H. otherwise than by notification.

**TABLE 10. Infant Mortality (Corrected for transfers)**  
**Deaths occurring in 1954 (Local figures)**

1953	Cause of Death	Total 1954	First day	From one day under one week	From one week to four weeks	Total under four weeks	Total from one month to under twelve months
—	T.B. respiratory ... ..	—					
1	Meningococcal meningitis ..	2	—	—	—	—	2
2	Non-meningococcal meningitis	1	—	—	1	1	—
—	Acute poliomyelitis ... ..	—				—	—
1	Whooping cough ... ..	—					—
26	Pneumonia (four weeks plus) ...	12				—	12
6	Pneumonia of the newborn ...	6	—	1	5	6	—
1	Influenza ... ..	—				—	—
—	Bronchitis ... ..	—				—	—
3	Gastro-enteritis (four weeks plus)	1	—			—	1
33	*Congenital malformations ...	30	3	8	9	20	10
17	*Birth injury ... ..	26	17	9	—	26	—
43	*Atelectasis ... ..	41	28	13	—	41	—
5	*Haemolytic disease of newborn	1	—	—	1	1	—
1	*Haemorrhagic disease of newborn	3	1	2	—	3	—
2	Other diseases of early infancy ...	—				—	—
6	*Immaturity (unqualified) ...	6	4	1	1	6	—
6	Other causes ... ..	7	1	1	—	2	5
153	TOTALS ... ..	136	54	35	17	106	30
	Rate per 1,000 live births registered in 1954 ... ..	20.32	8.07	5.23	2.54	15.84	4.48
	Year 1953 { TOTALS ... ..	153	43	48	14	105	48
	{ Rate per 1,000 live births registered	22.03	6.19	6.91	2.02	15.12	6.91

\* Where there has been mention of immaturity—{ 1954—Bristol cases—61  
During 1953—Bristol cases—56

Deaths in :—	Hospitals	...	...	116 (including 4—in outside city area hospitals)
	Nursing Homes	...	...	1
	Private Residences	...	...	19
	Total	...	...	136



### 3. PREVALENCE AND CONTROL OF INFECTIOUS DISEASES

#### Diphtheria

No notifications of diphtheria were received during 1954. This was the fifth successive year with no confirmed cases in the City, and the eighth successive year with no deaths. The decline in the incidence of diphtheria is strikingly shown in the graphs on page 18. Information concerning immunisation against diphtheria is given on page 21 of Section B of this report.

#### Dysentery

See page 23.

#### Erysipelas

The following table shows the notifications for the past ten years. Figures for deaths are given in brackets:—

1945	..	151 (0)	1950	..	133 (0)
1946	..	82 (0)	1951	..	84 (0)
1947	..	144 (2)	1952	..	91 (0)
1948	..	144 (1)	1953	..	72 (0)
1949	..	135 (0)	<b>1954</b>	..	<b>88 (0)</b>

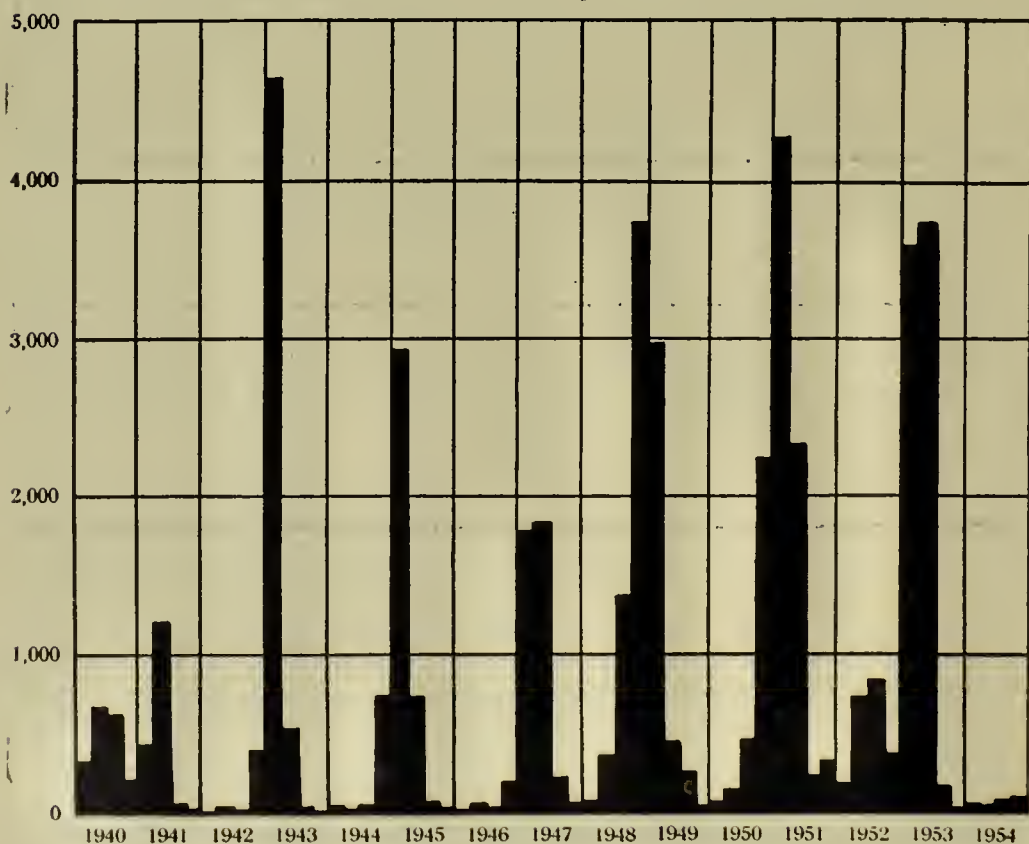
#### Food Poisoning

See page 24.

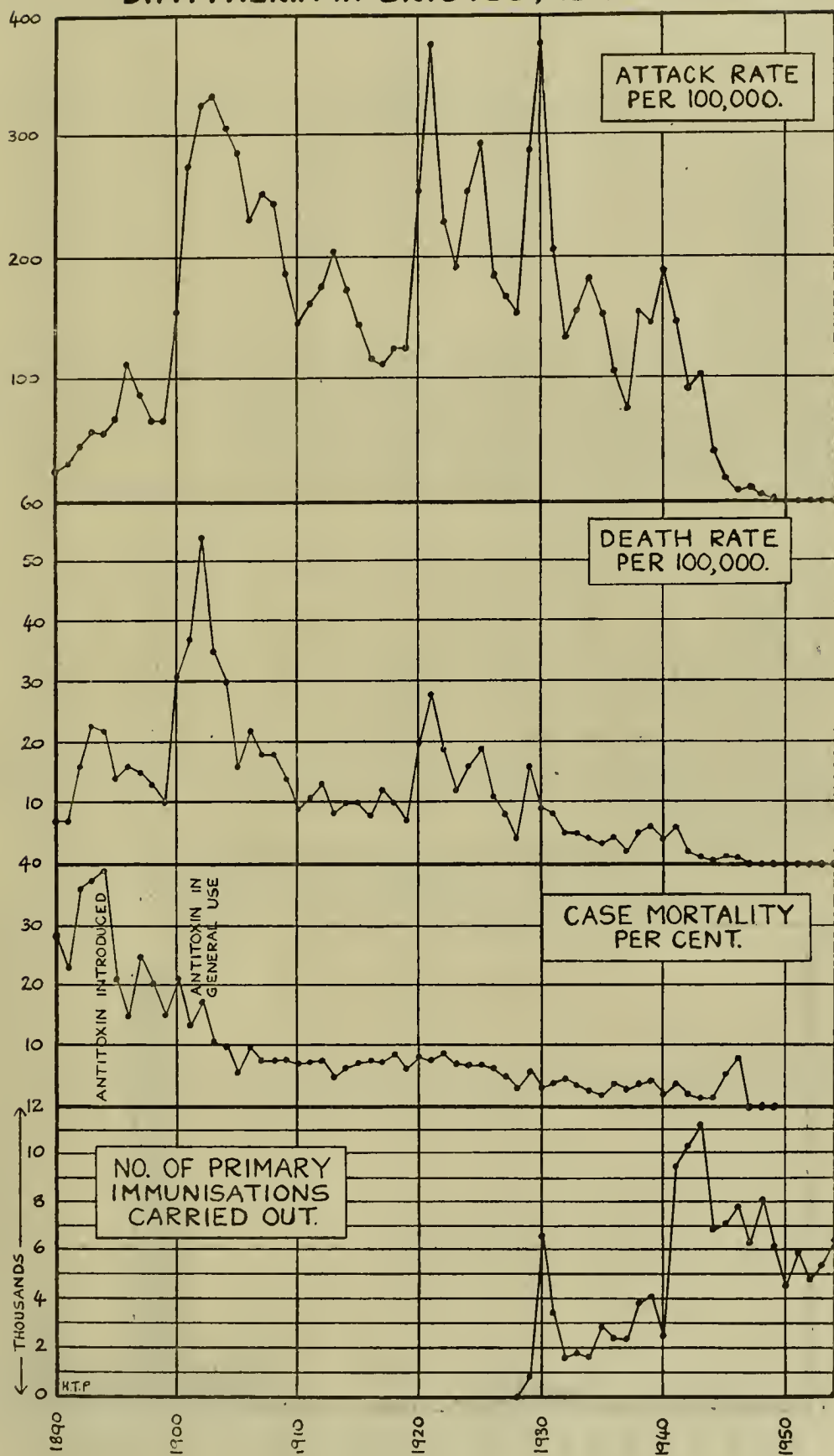
#### Measles

During the year, 217 cases were notified. The incidence for the year was the lowest recorded in Bristol since measles was made notifiable in 1939. The following graph shows the quarterly incidence of measles in Bristol since 1940, and clearly illustrates the tendency of the disease to occur in epidemic waves about every two years:—

**MEASLES—Bristol—Quarterly Incidence, 1940-1954**



## DIPHTHERIA IN BRISTOL, 1890-1954.



**Paratyphoid Fever**

See page 26.

**Pneumonia**

The total notifications of acute primary and influenzal pneumonia during the past ten years are as follows :—

1945	..	..	463	1950	..	..	530
1946	..	..	519	1951	..	..	606
1947	..	..	429	1952	..	..	427
1948	..	..	456	1953	..	..	611
1949	..	..	447	<b>1954</b>	..	..	<b>416</b>

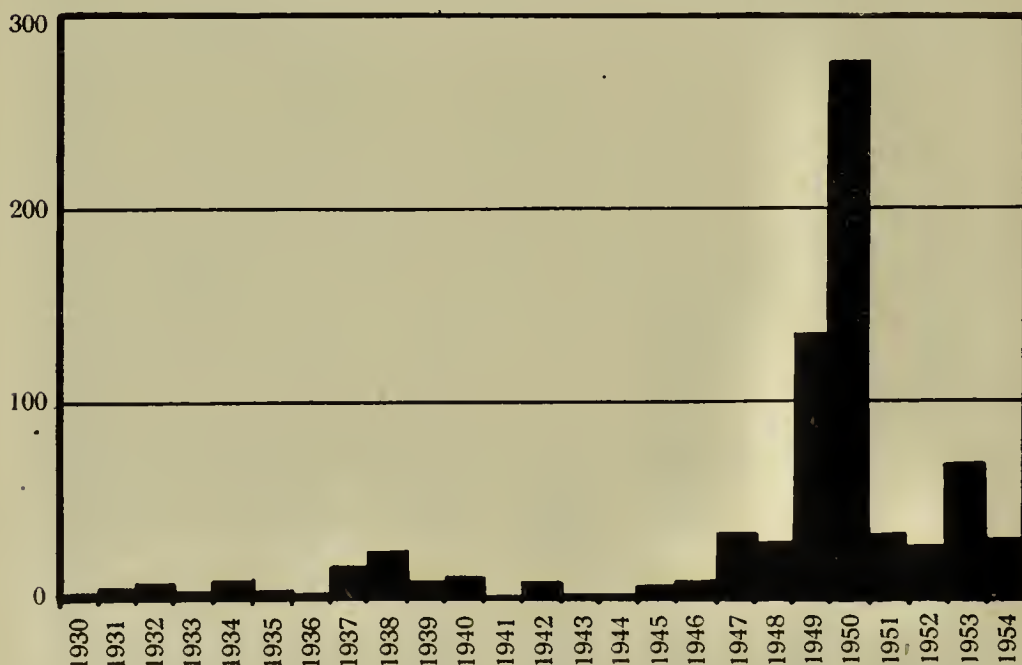
**Poliomyelitis**

Thirty cases were notified during 1954 and there was one death from the disease. Twenty-five cases (19 male and 6 female) were paralytic and 5 (3 male and 2 female) non-paralytic. The attack rate was 6.7 per 100,000 population, compared with 15.5 in 1953. The following table shows the age and sex incidence.

		Under 5 years	5—14	15—24	25 & over	Total
Male	..	9	7	2	4	22
Female	..	2	3	—	3	8
Total	..	11	10	2	7	30
Deaths	..	—	1	—	—	1

The following graph shows the incidence of poliomyelitis in Bristol since 1930. There was a sharp increase in 1947, and the rate has since remained comparatively high, with a particularly heavy incidence in 1949 and 1950 :—

**POLIOMYELITIS IN BRISTOL**  
Annual Incidence, 1930-1954 (confirmed cases)





**Tabulation by Age, Sex and Clinical Classification of Cases Notified as Acute Rheumatism during the year 1954**  
**Total=42**  
*Notification Area C.C. Bristol C.B.*

Clinical Classification of Case Notified	AGE IN YEARS										Total All Ages		Total Both Sexes
	0-4		5-9		10-14		15 over						
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
1. Rheumatic pains and/or arthritis without heart diseases ..	—	—	1	1	3	6	—	—	4	7	—	11	
2. Rheumatic heart diseases (active)	—	—	—	—	—	—	—	1	—	1	—	1	
(a) alone .. ..	—	—	—	—	—	—	—	—	—	—	—	—	
(b) with polyarthritis ..	—	—	1	1	6	7	—	1	7	9	—	16	
(c) with chorea .. ..	—	—	1	—	—	—	—	—	1	—	—	1	
3. Rheumatic heart disease (quiescent)	—	—	—	—	—	—	—	—	—	—	—	—	
4. Rheumatic chorea (alone) ..	—	—	—	—	—	4	—	—	—	4	—	4	
TOTAL Rheumatic cases ..	—	—	3	2	9	17	—	2	12	21	—	33	
5. Congenital heart disease .. ..	—	—	—	—	—	—	—	—	—	—	—	—	
6. Other non-rheumatic heart disease or disorder .. ..	—	—	—	—	—	—	—	—	—	—	—	—	
7. Not rheumatic or cardiac disease ..	—	1	—	3	1	4	—	—	1	8	—	9	
TOTAL Non-rheumatic cases ..	—	1	—	3	1	4	—	—	1	8	—	9	

**Rheumatism (Acute)**

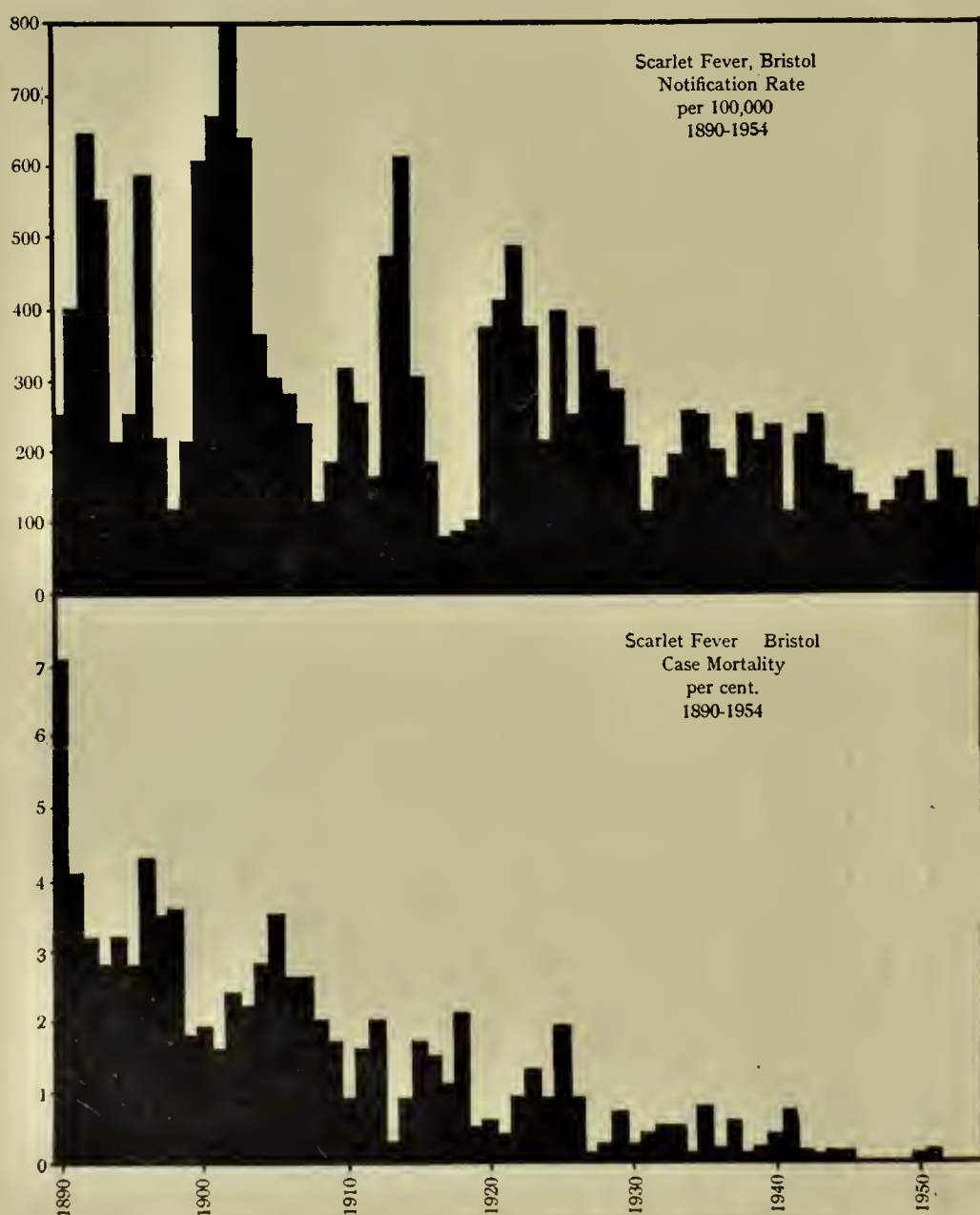
Acute rheumatism occurring in persons under 16 years of age has been notifiable in Bristol since October, 1947. The following are the notifications for the past seven years :

1948	..	..	68	1952	..	..	44
1949	..	..	59	1953	..	..	54
1950	..	..	32	1954	..	..	41
1951	..	..	35				

**Scarlet Fever**

The notified incidence of scarlet fever for 1954 (530 cases) was the lowest for seven years. No deaths were reported during the year.

The following graphs show the decline in the incidence of and mortality from scarlet fever since 1890.



**Typhoid Fever**

See page 26.

**Tuberculosis**

See page 43 of Section B.

**Whooping Cough**

The following are the notifications for the past ten years. The number of registered deaths for the year are given in brackets.

1945	..	497 (4)	1950	..	3,081 (2)
1946	..	705 (4)	1951	..	1,902 (2)
1947	..	747 (4)	1952	..	1,830 (1)
1948	..	1,838 (8)	1953	..	1,994 (2)
1949	..	369 (2)	<b>1954</b>	..	<b>1,114 (0)</b>

1954 was the first year on record when no deaths were attributed to whooping cough in the City.

## APPENDIX "A"

**GASTRO-INTESTINAL INFECTIONS  
IN BRISTOL IN 1954**

H. Temple Phillips

*(Chief Assistant Medical Officer of Health)***Dysentery**

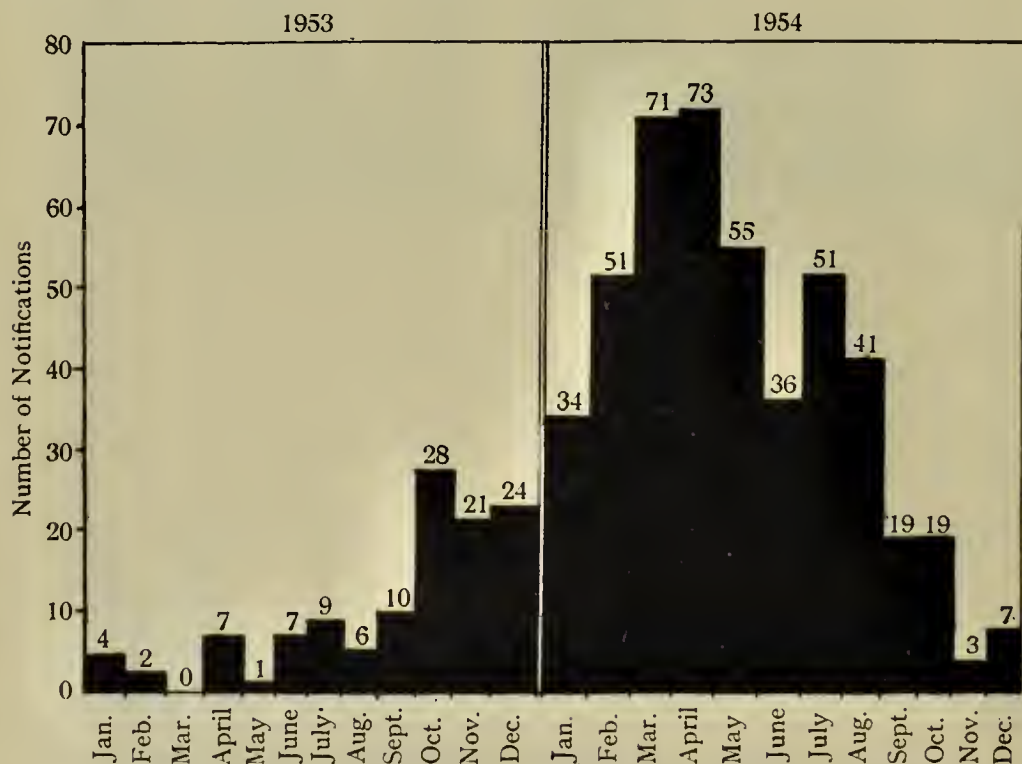
Four hundred and sixty cases were notified during 1954 and the following table shows the incidence over the past ten years.

1945	...	386	1950	...	154
1946	...	114	1951	...	611
1947	...	83	1952	...	118
1948	...	18	1953	...	119
1949	...	47	<b>1954</b>	...	<b>460</b>

Three hundred and ninety-five cases were of the Sonne type ; of the remaining 65, one was of the amoebic type, one due to *shigella alkalescens*, and the rest non-specific.

The disease was generally of mild type and no deaths were attributed to dysentery during the year ; though one elderly patient died from other causes while in hospital for Sonne dysentery.

The epidemic of Sonne dysentery, which had been gathering momentum during the latter part of 1953, continued into 1954, reaching its peak in April. By the end of the year, however, it appeared to have come practically to an end. The following histogram shows the monthly incidence during 1953 and 1954.

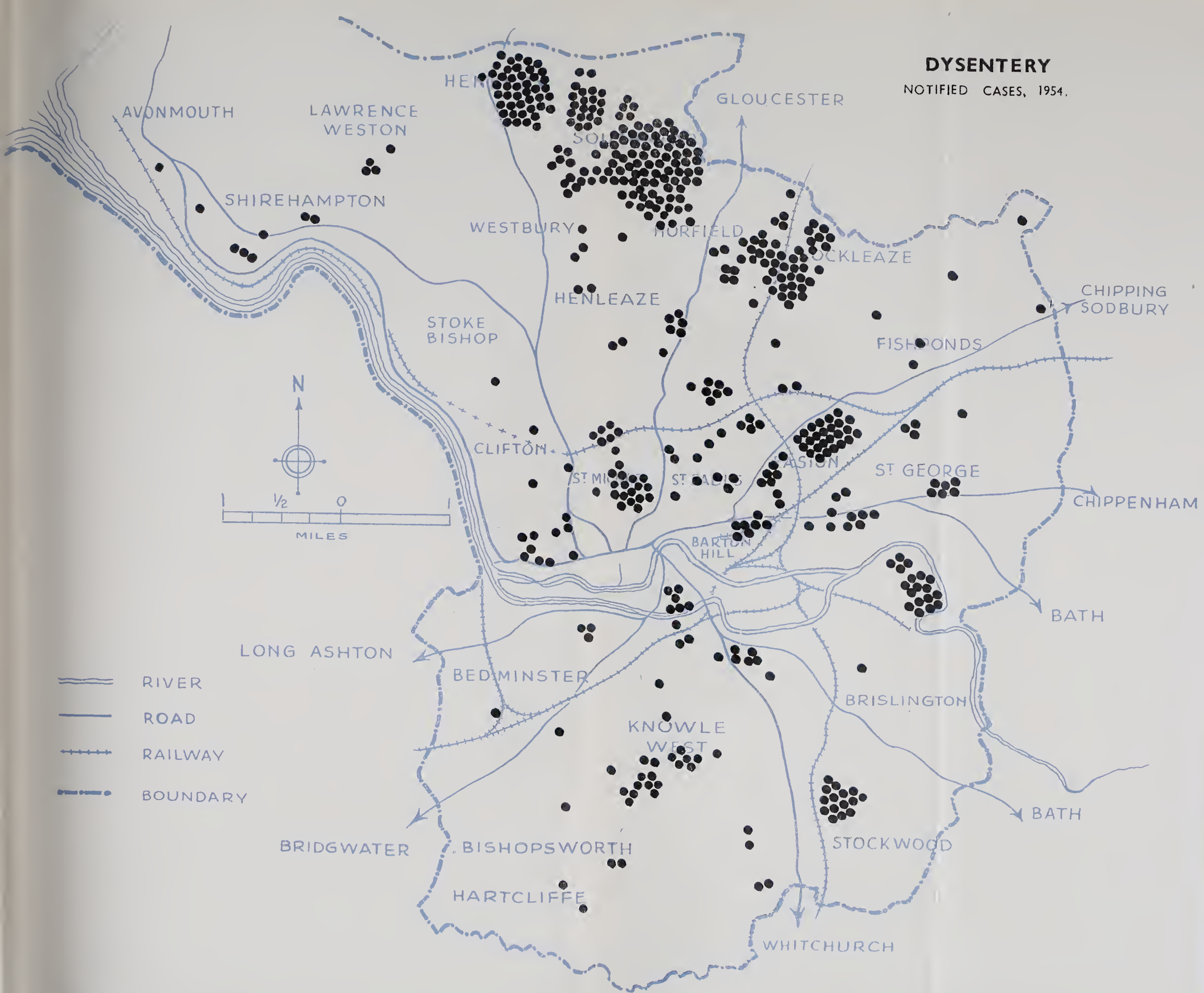


The geographical distribution of cases is shown in the accompanying map, and it will be seen that the highest incidence occurred in the Southmead, Henbury and Lockleaze areas.



# DYSENTERY

NOTIFIED CASES, 1954.





The following table shows the incidence according to age and sex. Three hundred and eighteen cases (69 per cent) occurred in children under ten years of age.

Age	Male	Female	Total
Under 1 ...	7	8	15
1—1 & 11/12	14	17	31
2—4 ...	72	52	124
5—9 ...	76	72	148
10—14 ...	15	16	31
15—19 ...	2	6	8
20—29 ...	4	12	16
30—39 ...	17	29	46
40—49 ...	3	7	10
50—59 ...	3	6	9
60—69 ...	5	4	9
70+ ...	2	11	13
Total ...	220	240	460

Forty-seven patients were admitted to hospital with dysentery, and the average stay in hospital was 19 days.

The case of amoebic dysentery occurred in a man who had suffered from a similar complaint in Ceylon nine years previously.

The high incidence of dysentery during the year involved a great deal of routine work, particularly on the part of the Food and Drugs Inspectors. The disease, however, is extremely difficult to control, as in addition to the clinical cases there are always a large number of symptomless excretors, who carry and spread the causative organism without themselves becoming ill.

Twenty-one cases of Sonne dysentery occurred at the Welfare Services Committee's home at 100 Fishponds Road during the period March—May, and four cases during October. On each occasion the outbreak was successfully controlled by the administration of oral streptomycin to all occupants of the affected blocks.

### Food Poisoning

One hundred and fifty-seven cases were notified during 1954, with no deaths. The figures for the past seven years are as follows :—

1948 ...	165	1952 ...	76
1949 ...	289	1953 ...	176
1950 ...	83	<b>1954</b> ...	<b>157</b>
1951 ...	85		

The cases were of the following types :—

<i>Salmonella</i> infections ...	...	120
<i>S. typhimurium</i> ...	...	107
<i>S. st. paul</i> ...	...	8
<i>S. anatum</i> ...	...	2
<i>S. enteritidis</i> ...	...	2
<i>S. senftenberg</i> ...	...	1
Staphylococcal (toxin) food poisoning ...	...	8
Non-specific ...	...	29

The cases were fairly evenly spaced over the twelve months, apart from the outbreak of 65 cases, referred to below, which occurred in June. The expected rise in notifications during the third quarter of the year did not materialise, doubtless owing to the absence of hot weather conditions.

The following table shows the number of persons affected in each outbreak :—

Single cases	...	...	...	...	45
No. of outbreaks involving	2 cases	...			8
"	"	"	3	"	4
"	"	"	4	"	2
"	"	"	5	"	1
"	"	"	6	"	1
"	"	"	65	"	1

The age and sex distribution is shown in the following table :—

	Male	Female	Total
Under 1 ...	7	5	12
1—1 & 11/12	1	5	6
2—4 ...	11	6	17
5—9 ...	2	2	4
10—14 ...	19	3	22
15—19 ...	47	3	50
20—29 ...	6	11	17
30—39 ...	4	4	8
40—49 ...	4	5	9
50—59 ...	3	4	7
60—69 ...	3	1	4
70+ ...	0	1	1
Total ...	107	50	157

An outbreak of food poisoning due to *salmonella typhimurium* occurred at a large residential boys' school during June, 1954. A total of 65 cases was reported, including 60 boys and 5 staff. Four food-handlers among the kitchen staff were found to be infected, and it was presumed that one of these had been the original source of infection. It did not prove possible to incriminate any particular item of food as the vehicle of infection. The outbreak was very quickly brought under control, and this was undoubtedly due in no small measure to the excellent co-operation which existed between the school authorities, the Health Department and the Preventive Medicine Laboratory.

It is perhaps disappointing that in outbreaks of food poisoning it is so seldom possible to identify with certainty the article of food which has conveyed the infection. Two cases were traced to brawn eaten while on holiday in South Wales, where 25 other cases occurred due to the same cause. Other suspected, but unconfirmed, vehicles of infection included



pork (4 cases), pork pie (1 case), tinned meat (1 case), tinned tongue (5 cases), tinned crab (1 case), crab paste (4 cases), fish cake (1 case), ham (1 case), duck eggs (4 cases), mince pie (1 case), tinned cream (3 cases), and artificial cream (2 cases).

**Paratyphoid Fever**

Three cases were notified during 1954, all of the “ B ” variety. There were no deaths. The following table shows the number of cases notified over the past ten years.

1945	...	0	1950	...	2
1946	...	3	1951	...	9
1947	...	3	1952	...	10
1948	...	1	1953	...	4
1949	...	2	<b>1954</b>	...	<b>3</b>

The first case, reported in April, was that of a woman aged 64, and the source of infection remained untraced.

The second case, in September, was that of a boy aged six years. He had just returned from a holiday with his parents in Spain, and had undoubtedly acquired his infection there.

The third case, also in September, was that of a young lady aged 20. She had recently been a member of a party of 25 which had cruised up the Rhine on a motor yacht. Four other members of this party also developed paratyphoid fever after their return to this country. The risk of enteric fever is one which prospective travellers on the continent would do well to bear in mind, and is commented on by Sir John Charles, Chief Medical Officer to the Ministry of Health, in his Annual Report for 1953, where he says :—“ It is worthy of remark that with the resumption of European holiday travel there has occurred in the late summer of each year a small number of such cases. Therefore prospective travellers would do well to discuss with their medical practitioners or local medical officer of health the best means of avoiding alimentary infection during the proposed journey.”

**Typhoid Fever**

One case was notified during the year—in October. He was a man aged 25 of Italian nationality, and had visited Italy some weeks previously. It seems likely that he may have acquired the infection while there.

The following table shows the notified incidence of typhoid fever over the past ten years.

1945	...	4	1950	...	0
1946	...	1	1951	...	0
1947	...	2	1952	...	2
1948	...	1	1953	...	2
1949	...	7	<b>1954</b>	...	<b>1</b>

## 4. METEOROLOGICAL OBSERVATIONS 1954

A. G. Harding, M.A., F.R.Met.Soc.

(*Frampton Cotterell, Nr. Bristol*)

(*From observations taken daily at 9 a.m., rainfall being entered to previous day*)

Mean pressure at 9 a.m. G.M.T. (corrected) ..	29.953"
Departure from 32 years average .. ..	—0.029"
Greatest pressure .. .. .	30.594" on 1st Jan.
Least pressure .. .. .	28.516" on 9th Dec.
Extreme range .. .. .	2.078"
Total rainfall .. .. .	38.98"
Departure from average .. .. .	+7.46"
Number of rainy days .. .. .	227
Departure from average .. .. .	+43
Days with 0.04" or more .. .. .	161
Days with trace .. .. .	3
Heaviest fall in 24 hours .. .. .	1.47" on 6th June
Mean humidity at 9 a.m. .. .. .	87%
Mean temperature .. .. .	49.3°
Departure from average .. .. .	—0.1°
Maximum temperature in screen .. ..	80° on 1st Sept.
Minimum temperature in screen .. ..	15° on 2nd and 4th Feb.
Extreme range in screen .. .. .	65°
Mean of warmest day .. .. .	66.5° on 4th Aug.
Mean of coldest day .. .. .	22.5° on 28th Jan. and 2nd Feb.
Hours of bright sunshine (estimated) ..	1,197
Departure from average .. .. .	—341
Days of bright sunshine .. .. .	50
Days entirely overcast .. .. .	92
Days with snow .. .. .	11
Days with thunder .. .. .	14
Days with fog .. .. .	6
Days with frost in screen .. .. .	46
Days with ground frost .. .. .	93

### Notes

1. The most notable feature of the year was the poor summer, reflected most noticeably in the great deficiency in the number of hours of sunshine.
2. *Temperatures* : The mean temperatures of May, June and August were about 1° below average and that of July 3.5° below. This was due to cool days rather than cold nights. January and February were also very cold but the mean temperature for the year was almost normal thanks to the mildness of October, November and December, in each of which months the mean temperature was about 4° above average.
3. *Rainfall* : It was the wettest year since 1935 (40.14"). Other wetter years recorded at this station were 1912 (40.77") and 1924 (42.19"), but in no other year has so many as 227 rainy days been recorded. The wettest months were November (5.37"), September (5.34"), and June (4.85"). April with only 0.50" was the driest.

## I. MATERNAL AND CHILD WELFARE

Dr. Sarah Walker

*(Senior Medical Officer, Maternal and Child Welfare)*

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### (i) CARE OF MOTHERS AND YOUNG CHILDREN

During 1954, the arrangement by which general practitioners undertake ante-natal care of their own patients, in the clinics, has been extended. The opportunity which the scheme provides for closer co-operation between doctors, midwives and health visitors, has been appreciated by all concerned.

The foundations of sound physical and mental health are laid down during early childhood. Preventive medicine having achieved outstanding improvements in the field of physical health, is becoming increasingly concerned with the prevention of mental ill-health. While efforts to maintain and improve physical standards must never be relaxed, much attention is now being given by doctors and health visitors to the mental and emotional needs of young children. This aspect is dealt with both in individual advice to parents, and in group teaching.

Consideration of questions relating to the inheritance of certain defects and diseases, is an important part of preventive medicine. Arrangements were made this year, for genetic advice to be available to parents or prospective parents, anxious to obtain expert guidance on such matters. Dr. J. A. Fraser Roberts kindly consented to act as consultant for this service.

Smallpox vaccination was started, early in the year, at 13 of the main child welfare clinics. Tuberculin jelly patch testing is now offered to all children attending for routine toddler examinations.

### Maternity Service

In 1954, 6,865 live babies were born to Bristol mothers, 80 less than in 1953.

A high proportion of mothers (73 per cent.) were confined in hospitals or maternity homes.

### Ante-natal Care

There are 16 ante-natal clinics in the City. Consultant obstetricians from Southmead Hospital and Mortimer House, attend at 12 of these centres. General practitioners now hold sessions at the following clinics:—Bedminster, William Budd, Brooklea, Granby House, Knowle, Portway, Speedwell, Water Lane and Lawrence Weston. It is hoped that similar facilities can be offered to interested general practitioners, at other centres, in the near future.

Ante-natal exercise classes have increased from 9 to 11, during the year. These classes are especially popular with mothers expecting first babies. A total of 938 mothers attended these classes during the year.

A chest X-ray, and full blood tests, including a haemoglobin estimation, are carried out as routine procedures for all mothers attending ante-natal clinics.

**Ante-natal Clinics**

Number of mothers attending	..	5,701	
Total number of attendances	..	44,450	
Attendances at	(1) Consultant sessions	.. ..	9,246
	(2) General practitioner sessions	.. ..	5,497
	(3) Medical Officers' sessions	.. ..	24,265
	(4) Midwives sessions	.. ..	5,442

**Post-natal Clinics**

Number of mothers attending	..	2,513	
Total number of attendances	..	4,552	
Number of mothers attending for first time for birth control			
	advice	..	167
Total number of attendances for birth control advice	..		1,034

**Parentcraft Clubs**

As described in the report for 1953, parentcraft clubs have been extended and are now held at 6 centres. Mothercraft demonstrations continue to be held at all the other ante-natal clinics.

**(ii) DOMICILIARY MATERNITY SERVICE****Staff :—**

Supervisor of midwives	.. .. .	Miss Gearing
Deputy Supervisor and Tutor for Part II training	..	Miss Creer
District midwives (including 2 premature baby midwives)	..	33

The number of mothers who were attended in their own homes by the district midwives during 1954 was 1,788. This was 98 less than in 1953.

Midwives also undertake many home visits in connection with the assessment of need for hospital confinement for social reasons, and in the following up of mothers who fail to keep clinic appointments, or who show early signs of toxæmia.

**Administration of Analgesics by Midwives****(1) Gas and Air**

When (a) Doctor present at delivery	.. ..	547 mothers
(b) Doctor not present at delivery	.. ..	974 ..
Total	.. ..	1,521

**(2) Pethidine**

When (a) Doctor present at delivery	.. ..	294 mothers
(b) Doctor not present at delivery	.. ..	383 ..
Total	.. ..	677

The Central Midwives Board are about to approve the use of trilene by midwives—this should prove a valuable addition to the analgesics available for the use of midwives, in domiciliary practice.



## (iii) SUBFERTILITY CLINIC

The work of this Clinic continues to increase. Mr. MacGregor—a consultant on Professor Lennon's staff, attends each week for specialist investigations.

Dr. Norma Boxall, medical officer of the women's clinic, has given the following details of the work during 1954 :—

Old cases attending .. 601

New cases .. 156

*New cases were :—*

referred by family doctor .. .. .	102
referred by family doctor and Bristol General Hospital .. .. .	14
referred by medical officers and health visitors ..	7
referred from Dr. Irving-Bell .. .. .	2
"    "    Marriage Guidance Council ..	11
"    "    Family Planning Association ..	
"    "    Children's Officer .. .. .	
recommended by old patients or own accord ..	20
Investigations undertaken .. .. .	340
Insufflation .. .. .	27
Biopsy at C.H.C. .. .. .	98
Biopsy at B.G.H. .. .. .	10
Cautery .. .. .	14
Huhner test .. .. .	139
Salpingogram at B.G.H. .. .. .	50
Polypi removed .. .. .	1
Sigmoidoscopy .. .. .	1
Number of pregnancies reported .. .. .	34
T. B. endometritis discovered .. .. .	3
Active T.B. chest lesions discovered .. .. .	2
Boeck's sarcoidosis .. .. .	2

The work of the Clinic continues to expand, 36 more new cases having been seen than during last year ; extra sessions have been fitted in to deal with this and to keep the waiting list down ; at the close of the year this stood at 20.

Three new cases of tuberculous endometritis have been discovered during the year and treated in conjunction with the Tuberculosis Department, and also 2 cases of Boeck's sarcoidosis. Two cases of active chest lesions have also been found in the course of routine X-rays.

In conjunction with Frenchay Hospital Pathological Department, the research work on the bacteriology of the cervix continues until sufficient cases have been examined.

Dr. Irving-Bell, medical officer of the men's clinic, reports as follows :—

" During 1954, there were 136 new cases seen by me at this clinic. The total attendances being 271.

All men, as in previous years, were given appointments for either the Wednesday morning or Thursday evening sessions. There is always a very great need for more sessions to be devoted to this work if a long waiting list is to be avoided.

Of the *new* cases, 50 or (36.8 per cent.) were referred to me by Dr. Norma Boxall in charge of the Female Subfertility Clinic. Medical practitioners sent in 69 cases (50.7 per cent.). The

remaining 17 (12.5 per cent.) were referred from the Bristol Marriage and Family Guidance Council.

Semen analysis was carried out in 100 men of the 136 new cases—57 per cent. were assessed as within the average range of normal fertility—34 per cent. as definitely infertile and 9 per cent. as sterile i.e. total absence of sperms in centrifuged semen specimens. Three separate specimens were analysed at different times in each of the infertile and sterile cases."

#### (iv) CARE OF THE UNMARRIED MOTHER

Help and advice is available, through the Welfare Service of the Maternal and Child Welfare Section, to unmarried mothers.

During 1954, 33 girls were admitted to the City's Mother and Baby Home, Snowdon Road.

The Department continued to send girls wishing to retain their babies, but who are without homes of their own, to Grove House Hostel. The girls take up daily employment, but live in the Hostel with their babies.

Close liaison is maintained with voluntary mother and baby homes in the City.

Miss Reed, Welfare Officer, has given the following details of the work of this service:—

During the year 297 applications in respect of an unmarried mother were received.

212 were in respect of a first illegitimate child.

50 were in respect of a second illegitimate child.

Of the remaining 35, 17 were known to be cohabiting and 18 were in respect of a third illegitimate child or of girls who seem unable to lead a steady life.

At the end of 1953 there were 81 cases outstanding where the child had not yet been born, making a total of 378 which have been dealt with as follows:—

Admitted to hospital for confinement	..	248
Admitted to hospital immediately after confinement	.. .. .	1
Born at Mother and Baby Homes	.. ..	8
Home confinement	.. .. .	6
Assistance in confinement not sought	..	46
Child not yet born	.. .. .	69

#### Affiliation Work

At the end of 1953 there were 81 cases where the child had not yet been born, and 79 cases where the child had been born but the case was incomplete. To these must be added the 297 cases received during 1954 making a total of 457 which have been dealt with as follows:—

Affiliation Orders obtained	.. .. .	37
Agreements	.. .. .	13
Payments direct	.. .. .	16
Information laid	.. .. .	3
Child adopted	.. .. .	40
Legitimate child	.. .. .	5



**Affiliation Work**—continued

Married to putative father	..	..	..	38
Married to another man..	..	..	..	5
Putative father not known	..	..	..	9
Putative father left country	..	..	..	10
Putative father died	..	..	..	4
Cohabiting ..	..	..	..	46
No corroboration ..	..	..	..	30
Not pregnant	..	..	..	1
No action possible	..	..	..	1
Girl left area	..	..	..	54
Not our case	..	..	..	9
Stillbirths and abortions	..	..	..	10
Child died	..	..	..	5
Girl left country with baby	..	..	..	1
Refused to take action	..	..	..	3
M.D. certified	..	..	..	3
Girl deported	..	..	..	1
Incomplete	..	..	..	47
Child not yet born	..	..	..	66
				<hr/> 457 <hr/>

Facts have shown during the last year that with the increased maternity benefits, greater numbers of girls attempt to make plans for themselves by living with the putative father or finding themselves lodgings. These arrangements often break down when money becomes short. Constant visiting is even more necessary, and the close co-operation with the health visitors and others is invaluable.

The age range is just as great, and this year several married women have presented difficulty.

Help is constantly sought regarding work, and employers are proving helpful in many directions.

The Mother and Baby Home is filling a need for the homeless girl as is the Hostel.

There has been a decided increase in money dealt with—£15,002 11s. 10d., as compared with £13,530 9s. 0d.

Court Orders are obtained and increases and arrears are constantly under review. This service gives a reliable help to the mother whether in her own family or endeavouring to make her own way.

Thirty-five married women have been to the Department for help. In practically every case the applicant has been known previously.

**(v) CHILD CARE**

Home visiting by the health visitors is of primary importance if a high standard of child care is to be maintained. With the ever expanding duties of the health visitor, it is important to remember that advice on the management and care of babies and young children still remains one of her most essential duties.

**Home Visits by Health Visitors during 1954**

Number of children under 5 years old visited	..	33,916
Number of infants ( <i>i.e.</i> under 1 year) 1st visits	..	6,268
Total visits	..	14,945
Children 1-2 years—total visits	.. .. .	17,712
Children 2-5 years—total visits	.. .. .	44,223

**Child Welfare Clinics**

There are 34 child welfare clinics in the City, with an average of 312 sessions each month. The policy is to provide, wherever possible, a clinic within reasonable walking distance of the mothers' homes.

The following statistics relate to attendances during the year.

Number of children who first attended in 1954 and who at their first attendance were under 1 year old	.. .. .	6,033
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Number of children who attended during the year and who were born in (1) 1954	.. ..	5,932
(2) 1953	.. ..	2,428
(3) 1952-49	.. ..	1,863
Total number of children	..	10,223

Number of attendances made by children who at date of attendance were (1) Under 1 year	..	68,062
(2) 1-2 years	..	13,794
(3) 2-5 years	..	15,435
Total attendances	.. ..	97,291

Routine examination of toddlers is undertaken by the medical officers, at all clinics.

Miss M. Astley, psychiatric social worker, has been seconded part-time, from the Mental Health Section, for work at some of the child welfare sessions.

Group education is undertaken in the clinics by health visitors and by some visiting lecturers.

Smallpox vaccination, diphtheria immunisation and whooping cough vaccination is undertaken in the clinics.

**Distribution of Welfare Foods**

Since June, 1954, when the Ministry of Food was disbanded, the Health Department became responsible for the distribution of welfare foods in the City.

Distribution is undertaken at all child welfare centres; at 48 Queen Square and by the kind co-operation of the Chief Education Officer and the Head Teachers concerned, at two schools in the City—Luckwell and Hartcliffe.

We are indebted to Mrs. Hickling, the Organiser and to members of the Women's Voluntary Service, who give invaluable help with the sale of welfare foods in our centres.

## Special Clinics for Backward Children

Dr. Grace Woods who acts as medical officer to this clinic, reports as follows:—

“ This clinic is held at the Central Health Clinic on the first and third Wednesday mornings in the month and is run on the lines of an infant welfare clinic.

The children who attend fall roughly into two types. Some are babies whose mothers have recognised the child's abnormality early in life, and have defaulted from their local infant welfare clinic for this reason. Many of the children are mongols, although some are microcephalics, hydrocephalics or ‘spastics’.

An attempt is made to obtain as full a diagnosis of the condition as possible, and the child is referred for any necessary consultant opinion or investigation. All the ‘spastic’ cases are referred to the Cerebral Palsy Assessment Clinic at the Children's Hospital. After a preliminary full history and examination the mother is encouraged to attend regularly for general advice and help. As the numbers attending are small, there is time for the mother to discuss her problem at length and to confide all her worries. Fathers quite frequently attend. The mothers have a chance to meet other mothers with similar problems, and several friendships have grown up.

Many of these mentally handicapped children are delayed in walking due to stiffness and general inco-ordination (not true spasticity), and in quite a few cases physiotherapy has ‘put them on their feet’, when the prognosis for walking seemed very poor. A routine weekly or twice weekly visit to the physiotherapy department—even over a prolonged period—where the child is helped to crawl and walk has proved again and again very worth while, and I feel that some of these severely handicapped children have learnt to walk and will walk for the rest of their lives due to the work of the physiotherapist.

The children are seen until the age of 5 years when, if it is certain that they are not fit to attend ordinary school, they are referred to the School Health Authority. Arrangements are then made for attendance at a special school or the Occupation Centre, or for institutional care. A few children whose parents have elected to keep them at home, still continue to attend after the age of 5 years.

The second type of child attending is the toddler who is backward in one or more of the milestones such as speech. An attempt is made to discover the cause of the delay—whether due to physical or environmental causes or low intelligence. In a number of these cases, it is felt that attendance at a nursery school will benefit the child; and the head mistresses of the various nursery schools have been very helpful in finding a place for these children.

Liaison is maintained with the health visitor, who knows the home and can also advise the mother, and with guidance many of these infant problems tend to disappear and the children later attend ordinary school.”

## Care of Premature Babies

Close team work is maintained between the domiciliary services and the premature baby units at Southmead and the Bristol Maternity Hospitals.

The following table gives details of premature births in 1954:—

# Premature Births 1954

Weight at Birth	Born in Hospital			Premature Live Births						Born in Nursing Home & transferred to Hosp. on or before 28 day			Born in Hosp.			Premature Stillbirths		
	Total	Died within 24 Hours	Survived 28 Days	Born at Home and Nursed entirely at Home			Born at Home and transferred to Hosp. on or before 28 day			Born in Nursing Home & Nursed entirely there			Total	Died within 24 Hours	Survived 28 Days	Born in Hosp.	Born at Home	Born in Nursing Home
				Total	Died within 24 Hours	Survived 28 Days	Total	Died within 24 Hours	Survived 28 Days	Total	Died within 24 Hours	Survived 28 Days						
3 lb. 4 oz. or less ..	66	28	29	2	—	2	4	1	1	—	—	—	32	—	—	5	—	—
Over 3 lb. 4 oz. to & including 4 lb. 6 oz.	69	6	57	7	—	7	4	—	4	—	—	—	20	—	—	—	—	—
Over 4 lb. 6 oz. to & including 4 lb. 15 oz.	81	2	76	6	—	6	—	—	—	—	—	—	12	—	—	—	—	—
Over 4 lb. 15 oz. to & including 5 lb. 8 oz.	183	—	181	31	1	30	7	—	5	3	—	2	9	—	—	4	—	—
Totals ..	399	36	343	46	1	45	15	1	10	3	—	2	74*	—	—	9	—	—

\* Including one not weighed.



## Reference to Consultant and Special Clinics

The following statistics relate to pre-school children referred to consultants from child welfare clinics and nurseries :—

Ear, Nose and Throat .. ..	58
Eye .. .. .	200
Heart .. .. .	3
Orthopaedic .. .. .	110
Skin .. .. .	41
Enuretic .. .. .	11
T.B. Contact .. .. .	147
Chiropody .. .. .	7

## Liaison with Hospitals

The arrangements by which members of Professor Neale's staff undertake work in some of our child welfare clinics, while medical officers on our staff act as clinical assistants to hospital paediatric departments, continue to work well, to the mutual advantage of both services.

We are indebted to Professor Neale on the paediatric side, and to Professor Lennon on the maternity side, for kindly inviting our medical staff to participate in clinical meetings of their departments.

## Liaison with the Children's Department

The Medical Officer of Health is adviser to the Children's Committee on all medical aspects of the care of deprived children. Dr. G. Hartley and Dr. A. Craig act as medical officers to the Residential Homes and Nurseries. Dr. A. Craig undertakes the medical examination of children placed by the Children's Department, for adoption.

## (vi) DAY NURSERIES

There are seven day nurseries in the City, all of which are approved as training nurseries for nursery students. The policy adopted by the Health Committee is to admit children for health or social reasons only.

Admission to a day nursery has proved of great benefit to some of the young children from "special families", resulting in a marked improvement both in their physical and in their mental condition.

We are indebted to Miss Parry—Inspector of nursery schools and classes, for advice on questions relating to the educational work in the nurseries.

The following table gives the position of attendances at the day nurseries on 31st December, 1954 :—

Under 2 years	2-5 years	Total	Accommodation	Average Attendance
55	229	284	290	205

## Nursery Schools and Classes

Medical inspection and supervision of children attending nursery schools and classes, is arranged by the Maternal and Child Welfare Section of the Department.

Statistics relating to these inspections are given in the report of the School Health Section.

## Nurseries and Child Minders' Regulation Act, 1948

At the end of 1954, seven child minders and one nursery, were registered under this Act. Four new applications were registered during the year, and three certificates relinquished.

All existing registrations are in respect of small nursery classes for children of 2 to 5 years old, usually for short daily sessions of 2½–3 hours.

## Nursing Homes

At the 31st December, 1954, there were 12 registered nursing homes in the City, providing accommodation for 309 patients.

Medical and surgical cases	..	155
Chronic sick	.. ..	135
Maternity	.. ..	19
		<hr/>
Total	..	309
		<hr/>

No new nursing homes were registered during the year—One registration certificate was relinquished on closure of the home. Routine inspections are undertaken by the Supervisor of Midwives, and special inspections by the Senior Medical Officer of the Section.

## Recuperative Convalescence

Under Section 22 of the National Health Service Act, recuperative convalescence has been provided for the following:—

Mothers accompanied by children .. .. 12 mothers and  
22 children

Unaccompanied children:

(1) To convalescent homes .. .. 11 children

(2) To residential nurseries provided  
by the Children's Department .. 12 children

Under Section 28 of the National Health Service Act, 11 women and three men were sent to convalescent homes during the year.

Attention has been drawn in previous reports to the lack of suitable convalescent provision in the region, for mothers accompanied by young children.

The City Council, early in the year, submitted to the Minister, a proposal to purchase an eminently suitable property at Clevedon, for use as a convalescent home for women and children. It was a matter of profound regret to the department when the Ministry of Health decided, although appreciating the need for such provision, that it was not possible to sanction the project at the present time.



## (vii) STATISTICS

Table I—MATERNITY AND CHILD WELFARE

						1953	1954
(a)	<i>Notifications:</i>						
	Live Births (including 587 premature births)					7,786	7,612
	Still Births ... ..					140	220
	Confinements at Home ... ..					1,935	1,842
	Premature Births admitted to Hospital (included above) ... ..					17	14
	Confinements at Institutions ... ..					5,895	5,883
(b)	(i) <i>Municipal Midwives:—</i>						
	Cases completed as (a) Midwife ... ..					1,250	1,134
	(b) Maternity Nurse ... ..					636	652
	Nursing Visits ... ..					24,856	21,902
	Other Visits ... ..					26,779	26,977
	Attendances at Ante-natal Clinics ... ..					1,703	1,892
	(ii) <i>Pupil Midwives:—</i>						
	Cases completed as Midwife ... ..					917	947
	Nursing Visits ... ..					15,066	13,009
	Other Visits ... ..					7,725	7,552
	Attendances at Ante-natal Clinics ... ..					768	767
	(iii) <i>Medical Students—District Midwifery:—</i>						
	Cases attended ... ..					83	89
(c)	<i>Attendances at Clinics:—</i>						
	(i) <i>Municipal Ante-natal (Medical Officers' Sessions)</i>						
	Verrier Road ... ..					1,762	1,425
	Bedminster ... ..					1,570	1,252
	Brooklea ... ..					621	773
	Brislington (Water Lane) ... ..					834	810
	Knowle ... ..					1,885	1,916
	North Bristol ... ..					2,135	1,733
	Portway ... ..					714	1,042
	Central ... ..					2,442	2,419
	South Bristol (Granby House) ... ..					2,437	4,189
	Southmead ... ..					2,605	2,231
	Speedwell ... ..					2,290	2,331
	Clifton ... ..					1,820	1,544
	Frenchay ... ..					493	249
	Dovercourt Road ... ..					478	102
	William Budd ... ..					856	959
	Lawrence Weston ... ..					994	1,290
						23,936	24,265
	Average per session ... ..					14.7	10.34
	New Patients ... ..					3,317	3,273
	(ii) <i>Municipal Ante-natal (Midwives Sessions):—</i>						
	Verrier Road ... ..					746	298
	Bedminster ... ..					379	519
	Brooklea ... ..					190	339
	Brislington (Water Lane) ... ..					162	203
	Knowle ... ..					466	334
	North Bristol ... ..					1,124	12,18
	Portway ... ..					214	57
	Central ... ..					143	67
	South Bristol (Granby House) ... ..					367	345
	Southmead ... ..					503	295
	Speedwell ... ..					376	301
	Clifton ... ..					155	108
	Frenchay ... ..					74	25
	Dovercourt Road ... ..					78	36

## Maternity and Child Welfare—continued.

						1953	1954
<i>Municipal Ante-natal (Midwives Sessions) (contd.)—</i>							
						737	602
						203	63
						250	632
						6,167	5,442
						7.7	7.13
						48	80
(iii)	<i>Post-natal Clinics:—</i>						
						755	681
						157	336
						386	367
						766	1,067
						93	113
						432	369
						229	193
						296	598
						223	197
						67	74
						134	117
						62	119
						17	235
						—	86
						3,617	4,552
						10.4	13.7
						2,111	2,304
(iv)	<i>Consultative Ante-natal Clinics:—</i>						
						1,046	1,117
						388	266
						343	368
						4,030	3,727
						205	250
						493	294
						571	684
						1,418	878
						1,024	587
						253	357
						756	530
						81	188
						10,608	9,246
						17.9	16.6
						3,776	3,521
(v)	<i>Municipal Infant Welfare Centres—Mothers:—</i>						
						3,814	4,445
						5,529	5,225
						4,730	4,088
						2,468	1,738
						6,245	5,082
						6,320	5,732
						3,861	3,678
						1,619	1,809
						952	1,050
						2,113	2,199
						2,011	2,676
						3,203	2,770
						4,771	5,298
						4,762	5,068
						1,025	936
						2,522	2,522

## Maternity and Child Welfare—continued.

	1953	1954
<i>Municipal Infant Welfare Centres (contd.)—</i>		
Frenchay ... ..	1,020	993
Bedminster Down ... ..	1,865	1,650
Durdham Down ... ..	6,034	6,000
Eastville ... ..	1,956	2,101
Hotwells ... ..	1,430	1,741
Lockleaze ... ..	—	1,492
Redcliffe ... ..	963	735
Sea Mills ... ..	1,473	1,451
Westbury ... ..	1,729	1,903
Dovercourt Road ... ..	2,725	1,362
Fishponds (Guinea Lane) ... ..	1,370	1,417
Verrier Road ... ..	1,910	2,027
William Budd ... ..	3,489	2,831
Ullswater Road ... ..	1,733	1,928
Lawrence Weston ... ..	2,705	2,575
Bishopsworth ... ..	1,022	2,114
Ashton Vale ... ..	814	1,056
Henbury ... ..	2,256	2,224
	90,439	89,916
Average attendance per session ... ..	26.5	25.1
<i>Children under 1 year:—</i>		
Central ... ..	2,629	3,456
Speedwell ... ..	3,938	3,512
Southmead ... ..	3,488	2,981
Portway ... ..	1,718	1,123
Knowle ... ..	4,547	3,766
South Bristol ... ..	4,877	4,180
Bedminster ... ..	3,104	2,727
Barton Hill ... ..	1,277	1,395
Headley Park ... ..	704	731
Moorfields ... ..	1,633	1,702
Clifton ... ..	2,717	2,350
North Bristol ... ..	4,160	4,276
Brynland Avenue ... ..	3,685	4,079
Brislington (Water Lane) ... ..	1,882	1,832
Avonmouth ... ..	784	676
Brooklea ... ..	1,735	2,217
Frenchay ... ..	537	574
Bedminster Down ... ..	1,224	1,171
Durdham Down ... ..	4,727	4,619
Eastville ... ..	1,719	1,675
Hotwells ... ..	981	1,419
Lockleaze ... ..	—	1,232
Redcliffe ... ..	588	486
Sea Mills ... ..	1,042	970
Westbury ... ..	1,053	1,403
Dovercourt Road ... ..	2,014	979
Fishponds (Guinea Lane) ... ..	1,196	1,222
St. George (Verrier Road) ... ..	1,419	1,542
William Budd ... ..	2,545	2,036
Ullswater Road ... ..	1,444	1,620
Lawrence Weston ... ..	2,092	1,901
Bishopsworth ... ..	805	1,681
Ashton Vale ... ..	670	779
Henbury ... ..	1,672	1,750
	68,606	68,062
Average attendance per session ... ..	20.0	18.9

## Maternity and Child Welfare—continued.

					1953		1954	
					1-2 yrs.	2-5 yrs.	1-2 yrs.	2-5 yrs.
<i>Municipal Infant Welfare Centres (contd.)</i>								
	Central	...	...	...	569	698	682	625
	Speedwell	...	...	...	1,072	821	864	739
	Southmead	...	...	...	720	626	723	574
	Portway	...	...	...	416	540	309	348
	Knowle	...	...	...	1,111	1,478	890	858
	South Bristol (Granby House)				1,189	1,228	642	1,158
	Bedminster	...	...	...	470	525	450	545
	Barton Hill	...	...	...	193	231	209	255
	Headley Park	...	...	...	107	441	178	485
	Moorfields	...	...	...	303	276	322	297
	Clifton	...	...	...	395	459	364	458
	North Bristol	...	...	...	510	438	792	461
	Brynland Avenue	...	...	...	757	849	667	772
	Brislington (Water Lane)	...	...	...	495	288	471	426
	Avonmouth	...	...	...	192	316	208	258
	Brooklea	...	...	...	202	295	221	455
	Frenchay	...	...	...	181	321	189	288
	Bedminster Down	...	...	...	449	405	418	461
	Durdham Down	...	...	...	888	1,250	1,055	1,161
	Eastville	...	...	...	260	127	309	150
	Hotwells	...	...	...	327	273	237	380
	Lockleaze	...	...	...	—	—	144	208
	Redcliffe	...	...	...	239	258	167	141
	Sea Mills	...	...	...	274	359	290	296
	Westbury	...	...	...	451	378	266	366
	Dovercourt Road	...	...	...	500	368	290	205
	Fishponds (Guinea Lane)	...	...	...	88	78	92	118
	St. George (Verrier Road)				295	197	272	216
	William Budd	...	...	...	702	718	501	507
	Ullswater Road	...	...	...	247	159	285	124
	Lawrence Weston	...	...	...	499	561	472	450
	Bishopsworth	...	...	...	249	359	262	839
	Ashton Vale	...	...	...	110	132	224	235
	Henbury	...	...	...	285	758	329	576
					14,745	16,210	13,794	15,435
	Average attendance per session				4.3	4.7	3.8	4.3
	New Patients							
	Children under 1 year	...			5,928		6,033	
	Children between 1 and 2 years				449		414	
	Children between 2 and 3 years				694		655	
(vi)	<i>Birth Control:—</i>							
	Attendances	...	...	...	957		1,034	
(vii)	<i>Minor Ailments:—</i>							
	Inspection	...	...	...	1,562		1,442	
	Treatment	...	...	...	2,698		2,172	
	New Patients—Inspected	...			885		755	
	Treated	...			654		619	
(viii)	<i>Relaxation Classes:—</i>							
	Ante- and Post-Natal Exercises				3,322		4,247	
	New Patients	...	...		628		1,636	
(ix)	<i>Sub-Fertility Clinic:—</i>							
	Attendances	...	...	...	712		1,070	
	New Patients	...	...	...	181		166	

**Maternity and Child Welfare—continued.**

					1953	1954
<i>Municipal Infant Welfare Centres (contd.)—</i>						
<i>Backward Children:—</i>						
	Attendances	...	...	...	132	116
	New Patients	...	...	...	18	14
<i>Special Diagnostic Clinic:—</i>						
	Attendances	...	...	...	740	836
	New Patients	...	...	...	237	234
(d)	<i>Health Visitors:—</i>					
	<i>Visits:—</i>					
	Ante-natal	...	...	...	2,085	1,694
	Primary	...	...	...	6,940	6,264
	Under one year	...	...	...	32,844	32,409
	1-2 years	...	...	...	26,526	17,615
	2-5 years	...	...	...	40,954	40,308
	Eye cases	...	...	...	812	498
	Ophthalmia Neonatorum	...	...	...	43	73
	Other special visits	...	...	...	6,083	9,424
	Blank visits	...	...	...	19,382	16,492
	Problem families	...	...	...	1,022	1,098
	Unmarried mothers	...	...	...	419	316
	Premature babies	...	...	...	2,538	3,260
<i>Sessions attended:—</i>						
	Clinics	...	...	...	8,695	7,927
	Nursery schools and classes (hours)	...	...	...	2,135	2,018
(e)	<i>Inspector of Midwives and Nursing Homes:—</i>					
	<i>Visits:—</i>					
	1. Midwives Acts—					
	Routine	...	...	...	127	136
	Special	...	...	...	271	364
	2. Home conditions	...	...	...	154	82
	3. Blank visits	...	...	...	177	145
	4. Nursing Homes (Routine)	...	...	...	26	18
	5. Nursing Homes (Special)	...	...	...	13	12
	6. Midwives cases	...	...	...	348	249
(f)	<i>C.M.B. Forms:—</i>					
	A. Medical Help	...	...	...	330	294
	B. Death (Neo-Natal)	...	...	...	6	4
	C. Stillbirth	...	...	...	9	13
	D. Laying out of the dead	...	...	...	6	3
	E. Liability of infection	...	...	...	7	20
	F. Artificial feeding	...	...	...	419	710



**Table 2—Maternity and Child Welfare—Welfare Department**

	1953	1954
Cases on Register at beginning of year ... ..	3,525	<b>3,850</b>
„ added ... ..	325	<b>334</b>
„ removed ... ..	—	—
„ on Register at end of year ... ..	3,850	<b>4,184</b>
Applications received :—		
(a) Unmarried mothers ... ..	301	<b>296</b>
(b) Married women ... ..	24	<b>38</b>
Affiliation Cases completed :—		
(a) Orders obtained ... ..	48	<b>49</b>
(b) Agreements arranged ... ..	17	<b>20</b>
Maintenance Orders (Married Women) ... ..	10	<b>3</b>
Assisted in application for arrears on orders ... ..	123	<b>115</b>
And on varying Orders ... ..	30	<b>28</b>
Admitted to homes :—		
(a) Expectant mothers ... ..	45	<b>32</b>
(b) Mothers with babies ... ..	34	<b>40</b>
Visits—Domiciliary :—		
(a) Ordinary ... ..	386	<b>462</b>
(b) After-care ... ..	550	<b>639</b>
Blank visits ... ..	105	<b>75</b>
Interviewed in hospital or homes ... ..	840	<b>898</b>
Total receipts ... ..	£13,548	£ <b>14,956</b>
„ disbursements ... ..	£13,530	£ <b>15,023</b>

**Table 3—Sunlight Treatment**

Central Clinic	1953	1954
<i>Artificial Sunlight—</i>		
<i>New Patients—</i>		
Adults ... ..	—	—
School children ... ..	460	<b>410</b>
Pre-school children ... ..	359	<b>339</b>
<i>Treatments—</i>		
Adults ... ..	—	—
School children ... ..	4,747	<b>4,016</b>
Pre-school children ... ..	3,571	<b>3,407</b>

**Table 4—Eye Clinic**

	New Patients		Attendances	
	1953	1954	1953	1954
School children ... ..	1,286	<b>1,285</b>	6,465	<b>6,884</b>
Pre-school children ... ..	86	<b>71</b>	363	<b>299</b>
Adults ... ..	—	—	—	—
Totals ... ..	1,372	<b>1,356</b>	6,828	<b>7,183</b>

Table 5—Orthopædic Department

	Patients		Attendances	
	1953	1954	1953	1954
Inspections :—				
M. & C.W.   ...   ...   ...	144	<b>110</b>	214	<b>145</b>
School   ...   ...   ...	768	<b>759</b>	1,181	<b>1,191</b>
Totals   ...   ...	912	<b>869</b>	1,395	<b>1,336</b>
Treatment :—				
M. & C.W.   ...   ...   ...	31	<b>42</b>	886	<b>919</b>
School   ...   ...   ...	299	<b>374</b>	5,771	<b>6,149</b>
Totals   ...   ...	330	<b>416</b>	6,657	<b>7,068</b>

Table 6—Foot Clinic

	Patients		Attendances	
	1953	1954	1953	1954
M. & C.W.   ...   ...   ...	3	7	7	<b>13</b>
School   ...   ...   ...	896	<b>962</b>	3,777	<b>4,582</b>
Totals   ...   ...	899	<b>969</b>	3,784	<b>4,595</b>

Table 7—Ear, Nose and Throat Department

	Patients		Attendances	
	1953	1954	1953	1954
Inspections :—				
M. & C.W.   ...   ...   ...	80	<b>58</b>	103	<b>73</b>
School   ...   ...   ...	1,117	<b>1,208</b>	1,912	<b>1,980</b>
Totals   ...   ...	1,197	<b>1,266</b>	2,015	<b>2,053</b>
Treatment :—				
M. & C.W.   ...   ...   ...	10	<b>9</b>	127	<b>108</b>
School   ...   ...   ...	129	<b>121</b>	2,678	<b>2,088</b>
Totals   ...   ...	139	<b>130</b>	2,805	<b>2,196</b>

### Table 8—X-Ray Department

The following are the numbers of persons X-rayed at the Central Health Clinic during 1954.

Adult T.B. contacts ... ..	}	...	...	...	...	809
Children inoculated with B.C.G.						
Referred by School Health Service (including child T.B. contacts)						3,495
Referred by M. & C.W. Service (expectant mothers and children under 5) ... ..						3,864
Staff medical examinations and others ... ..						2,472
Totals ... ..						10,640

### Table 9—Scabies Baths

	Central Health		Feeder Road		Totals	
	1953	1954	1953	1954	1953	1954
School children ... ..	156	70	1	—	157	70
Children under 5 ... ..	74	27	—	—	74	27
<i>Adults—</i>						
Females ... ..	109	42	—	—	109	42
Males ... ..	—	—	58	22	58	22
Total Attendances ... ..	339	139	59	22	398	161
<i>*New Patients:—</i>						
School children ... ..	85	33	1	—	86	33
Children under 5 ... ..	37	13	—	—	37	13
<i>Adults</i>						
Females ... ..	58	25	—	—	58	25
Males ... ..	—	—	32	11	32	11
Total New Patients ... ..	180	71	33	11	213	82

\* Included in "Total Attendances."

Table 10—Dispensary

					1954
(1) Establishments served :—					
Health Centres and Clinics (34)					
Residential Institutions (24)					
Day Nurseries, Day Special Schools ;					
Nursery Schools and Classes (37)					
Other Establishments (17)					
Municipal Midwives (38)					
School first aid sets (563)					
Gas and air apparatus servicing (1,827)					
(2) Turnover of Drugs, Dressings, etc. :—					
Quantity of mixtures made	...	...	gallons	...	505
Quantity of ointment made	...	...	lb.	...	574
Quantity of powders made	...	...	lb.	...	69
Other medicines dispensed	...	...	gallons	...	377
Vit. A. & D. Emulsion	...	...	gallons	...	59
Vit. A. & D. Capsules	...	...	caps.	...	45,000
Whooping Cough Vaccine	...	...	c.c.	...	9,230
Whooping Cough/Diphtheria Vaccine	...	...	c.c.	...	18,490
P.T.A.P. Diph. Proph.	...	...	c.c.	...	5,240
Lint and cotton wool	...	...	lb.	...	1,524
(3) Bulk purchase of drugs :—					
			lb.	...	1,490
			gallons	...	258
			tabs.	...	506,006

Table 11—Diphtheria Immunisation

					1953	1954
<i>Diphtheria</i> —Number of immunisations completed at Schools, Clinics and Nurseries and by General Practitioners during the year						
Full course—Ages 0—5 years	...	...	...	...	4,199	5,558
Ages 5—15 years	...	...	...	...	1,141	914
Booster dose —15 years	...	...	...	...	4,850	4,061

Table 12—Day Nurseries

No. on Register 31.12.53	No.	Places Provided 31.12.54	No. added to Register	No. removed from Register	No. on Register 31.12.54	Waiting List
279	7	290	421	407	293	—

**Table 13—Care and After-Care, Nursing Appliances Equipment  
for Loan**

Items					No. on Loan at 31.12.54
Air rings	...	...	...	...	445
Air beds	...	...	...	...	26
Bed blocks (prs.)	...	...	...	...	9
Bed pans	...	...	...	...	448
Bed pulley	...	...	...	...	16
Back rests	...	...	...	...	340
Bed tables	...	...	...	...	5
Breast pump	...	...	...	...	3
Commodes	...	...	...	...	99
Cradles	...	...	...	...	44
Crutches (prs.)	...	...	...	...	50 $\frac{1}{2}$
Douche cans	...	...	...	...	2
Feeding cups	...	...	...	...	58
Fracture boards	...	...	...	...	18
Inhalers	...	...	...	...	3
Mattresses—Dunlopillo	...	...	...	...	13
Rubber sheets	...	...	...	...	507
Sand bags	...	...	...	...	1
Sputum mugs	...	...	...	...	50
Steam kettles	...	...	...	...	2
"T" sticks	...	...	...	...	37
Urinals—male	...	...	...	...	204
Urinals—female	...	...	...	...	76
Wheel chairs	...	...	...	...	81
Worrall walking aid	...	...	...	...	9
Total	...	...	...	...	2,546 $\frac{1}{2}$



## (VIII) IMMUNISATION AND VACCINATION

**Diphtheria Immunisation**

Number of children who completed a full course of primary immunisation in the Authority's area (including temporary residents) in the six-months period indicated.

	Under 5	5 to 15	Total
Six months ended 30th June, 1950 .. ..	2,525	187	2,712
„ „ 31st Dec., 1950 .. ..	1,710	95	1,805
„ „ 30th June, 1951 .. ..	2,425	529	2,954
„ „ 31st Dec., 1951 .. ..	2,573	345	2,918
„ „ 30th June, 1952 .. ..	2,194	114	2,308
„ „ 31st Dec., 1952 .. ..	2,345	85	2,430
„ „ 30th June, 1953 .. ..	2,160	886	3,046
„ „ 31st Dec., 1953 .. ..	2,039	255	2,294
„ „ 30th June, 1954 .. ..	<b>2,623</b>	<b>740</b>	<b>3,363</b>
„ „ 31st Dec., 1954 .. ..	<b>2,903</b>	<b>133</b>	<b>3,036</b>
<b>Whooping Cough Immunisation</b>			
Six months ending 30th June, 1954 .. ..	<b>1,152</b>	<b>195</b>	<b>1,347</b>
„ „ 31st Dec., 1954 .. ..	<b>960</b>	<b>124</b>	<b>1,084</b>

**Vaccination**

Number of Persons Vaccinated (or re-vaccinated)							
	Age at 31st Dec., 1953 i.e., born in yrs. ....	Under 1 year 1953	1 to 2 years 1952	2 to 4 years 1949-51	5 to 14 years 1939-48	15 yrs. or over pre 1939	Total
1953	Number Vaccinated ..	966	716	159	184	309	2,334
	Number re-vaccinated	151	139	33	75	456	854
	Age at 31st Dec., 1954 i.e., born in yrs. ....	Under 1 year 1954	1 to 2 years 1953	2 to 4 years 1950-52	5 to 14 years 1940-49	15 yrs. or over pre 1940	Total
Pro- vis'l. 1954	Number Vaccinated ..	<b>1,249</b>	784	174	138	282	2,627
	Number re-vaccinated	<b>125</b>	75	18	37	313	568

## 2. SPECIAL FAMILIES

The Health Department continues, in liaison with the other interested departments of the City, to give considerable attention to the needs of "special families". The Co-ordinating Committee of Chief Officers now meets twice each month to consider general and individual case policy.

Sister Laver, the liaison health visitor for special families, gives the following report of her work :—

"During 1954, 125 families have been visited. In some cases, visits have been paid over a long period to try and improve living conditions and the health of the family. In other cases, visits have been paid to avert, or help with a specific crisis. As so many of these families are very unstable or of low mentality, one has to be ready to help as each crisis arises.

When visiting, liaison is maintained with all the statutory and voluntary bodies interested. In this way a plan of action can be followed so that the family is not given conflicting advice, and the best use can be made of existing services.

In some cases practical help has been given with household duties and child care. Where grants are allocated, the mother is shown how to make the best use of the money.

Where mothers and children have been sent to the Mayflower or Brentwood Recuperative Centre, intensive follow-up has been given on return home to try and help the mothers make use of their new found knowledge. Friendship and encouragement is given to help prevent the family returning to their old apathetic state. The husbands are urged to improve home and financial conditions for their wives' return.

Through the Co-ordinating Committee many special families have been saved from eviction and thus from break up of the family. Through the discriminate use of day nurseries, nursery schools and residential convalescence, the health of the mother and young children has been improved and removal of the children prevented."

Mr. A. Strange, organiser of the Bristol Family Service Unit, gives the following report of the work of the Unit, during 1954 :—

### **Bristol Family Service Unit**

During the year the staff at the Unit increased to three caseworkers, Miss Cole having arrived from Sheffield in January. In July, Miss Rogers replaced Miss Long who left upon her marriage.

Forty-one families were assisted by the Unit, and of these cases 11 were closed before the end of the year (eight were closed successfully, some being short-term cases, whilst another family moved from the district).

The major part of interviewing and practical work was carried out within the homes and in fact, nearly 3,000 home visits were made and just over 400 interviews were conducted at the Unit house. In addition to home visiting, group activities were organised in which families were encouraged to take part as family units, e.g. weekend outings, and several children were sent for holidays with private families.

Of the 30 families being visited by the Unit at the end of the year:

Four had in the past been received into Part 3 Accommodation, and the majority had been served with either notices to quit or eviction summonses. However, with the co-operation of the Housing Department and, in some cases, the National Assistance Board, the risk of families becoming evicted has been greatly reduced and, in fact, no Unit family has been evicted during the past two years.

Six families were permanently supported from public funds (two of these were disablement cases and another a widow).

There were 170 children in the families—70 under school age, 68 between 6–10 years of age, 21 between 10–15 years of age, and 11 over school leaving age. In one family there were six, and in another five children under 5 years of age.

Much of the Unit's work cannot be measured in statistical terms for time has often to be spent in establishing a relationship with individuals in order to gradually change or modify their attitudes. Mental instability to a varying degree, is a factor operating in a number of cases and this may affect the relationships within the family and its relationships outside the home, e.g. neighbours, authority, employers, etc. In the more serious cases the Unit may seek psychiatric consultation in order to gain a better understanding of individual behaviour and thus be in a stronger position to assist the family.

Because of the practical problems confronting mothers with large families of young children, domestic education has depended to a great extent on individual contact rather than in groups, either in the home or at the Unit house, and a great deal has been achieved in this way with a number of mothers who had proved resistant to a more formal approach.

Many families attracted by the easy facilities offered by the credit and hire-purchase system commit themselves heavily and are unable to meet their commitments especially where the income may be reduced or fluctuating as the result of irregular employment or ill-health. Frequently the family lives in an atmosphere of constant pressure from creditors and threats of legal action. These pressures lead to friction and disharmony within the home and the drift into apathy and general inadequacy to cope with the situation. The Unit's support has been needed in many cases to discuss financial problems, making arrangements concerning debts, budgeting with the mother, and discussing with the husband his employment difficulties.

The Unit has had at its disposal a small fund to be used for rehabilitation purposes in providing essential equipment (e.g. furniture, bedding, fireguards, etc.). This service has been used only when it is felt that it will serve a constructive purpose.

The fullest use has been made of the specialist services available, and the Unit has received valuable support both from the Local Authority departments and the other social work organisations.

The Unit wishes to record its appreciation of the services rendered by Dr. Sarah Walker (Maternity and Child Welfare Services), Miss L. A. E. Shaw (Department of Economics, Bristol University), and Dr. Lumsden Walker (Senior Registrar, Child Guidance Clinic), who have acted as a consultative group to advise workers on particular problems in their casework.



### 3. NURSING AND AUXILIARY SERVICES

L. M. Bendall  
(*Chief Nursing Officer*)

#### (i) HEALTH VISITING

Establishment at the end of 1954 was as follows:—

- 61 full-time health visitors
- 7 temporary health visitors under contract
- 4 part-time health visitors

Of these, ten are clinic sisters and eight carry out visiting of a specialised nature.

New appointments:—

- 1 full-time health visitor
- 5 full-time health visitors transferred from temporary health visitors under contract the previous year.

Resignations: 6

Causes of resignation:—

- 1 retirement
- 1 marriage
- 4 to take other posts

In presenting this report it is important to point out that the health visitor is also the school nurse.

The work of the health visitor is divided into two parts:

- (1) Home visitation.
- (2) Work in clinics, nursery schools and classes.

#### Home Visitation

The field work of the health visitor includes the care of the family as a whole. She is recognised as a health teacher and family adviser who is also responsible for social investigation, research work, and the interpretation of the services available to the family. "Family case work" as such, however, has not yet been established, and the birth of a baby is still her key of admission into the home.

Because of the limited number of health visitors available and in order to utilise their services to the best advantage, they have been relieved of all clinic duties which can be carried out by State Registered Nurses. The home visitation is also highly selective, the health visitors visiting the families wherein lie the greatest need.

#### Specialised Visiting

While the general policy continues to be that the health visitor takes responsibility for everything in her district, a limited amount of specialisation has been found to be desirable.

Specialised health visiting is allocated as follows :—

- 1 health visitor to notification and control of infectious diseases.
- 1 health visitor to premature baby visiting.
- 1 health visitor to welfare of the blind (half-time).
- 1 health visitor to special (problem) families.
- 4 health visitors to old people's welfare. Because of the increase in this branch, a fourth health visitor was seconded in August 1954.

Sister Laver, special (problem) families visitor, reports as follows :

" During 1954 I have visited 125 families ; 82 cases have been visited in liaison with the district health visitor, and in some cases, when some specific crisis has been averted, the case has been handed back.

Seventeen families are being given constant supervision and help with all problems pertaining to the health and welfare of the family. A further 16 families have been handed back to the district health visitors.

Ten cases are being visited in conjunction with the Family Service Unit.

One family has been rehabilitated by sending the mother and three young children to the Mayflower Training Home. The older children were cared for by the Children's Department and the husband encouraged to improve home conditions while his wife was away. Constant touch was kept with all members of the family and we have been very pleased with the family's response.

Much work has been done in co-operation with other statutory bodies such as Children's, Housing and Probation Departments. There has been close liaison with hospital almoners and family doctors, which has resulted in a decrease in the number of visitors to one family."

Sisters Sheen, Aplin, Harris and Hooper, old people's visitors report as follows :—

" Established old people's welfare in the Public Health Department is now entering into the fifth year of active full time health visiting for the sick and aged. This is a welfare service for the old and *young* ' chronic sick '.

Looking back over the last four years, it is realised that there has been a gradual improvement in conditions found on a *first* visit ; this is probably due to the fact that needy cases are notified at an earlier stage.

The number of new cases registered during 1954..	1,551
" " " " " " " " 1953..	1,037
" " " " " over 65 years of age ..	1,322
" " " " " under 65 years of age	229
The total number of cases on the register at the end of December 1954 .. .. .	3,181
The total number of cases on the register at the end of December 1953 .. .. .	2,268
Number of visits paid during 1954.. .. .	6,978
" " " " " " " " 1953.. .. .	4,068
Number of interviews given to old people, their relatives or friends during 1954 at the Central Clinic	623



The draw sheet and bed gown service has been used to its full capacity and occasionally there has been difficulty in coping with the need, especially during the autumn and winter months.

Nursing the chronic sick in their own homes is a difficult problem but when complicated by incontinence, is doubly so.

It is felt by the Department that every material assistance should be given irrespective of age and means if the need exists.

Good relationship exists between the health visitor and the district nurse and often a difficulty is discussed one with the other.

During 1954, there was a marked absence of infested patients in their dwellings. There were no cases compulsorily cleansed. Two cases agreed to allow the cleansing team to operate.

Many cases arise where there is need for chiropody treatment and where the old person cannot afford to pay private fees. A chiropody service would undoubtedly decrease suffering and prevent housefastness.

Very good co-operation is maintained between hospitals for chronic sick, their almoners and also the almoners of other hospitals in the City.

The home reports sent periodically to the Bed Bureau of the Southmead General Hospital Group are of great value to the hospital services in assessing the need for a hospital bed.

General practitioners in the City have given every assistance in 'Old People's Welfare' and it is felt that it should be recorded how much their co-operation is appreciated.

During 1954, convalescence was arranged for fifty people through voluntary and statutory grants. Others have been assisted to obtain grants for extra nourishment, night sitters-up etc.

Bristol Dispensary for the Sick Poor has assisted greatly in covering the need that existed in many cases that could not be covered by the State and Local Authority.

What one can wish for 1955, is a better and more valuable service to this section of the community, whose needs are so great."

## **Clinics**

The health visitors are responsible for clinic administration, and in addition, to give advice and health education in both ante-natal clinics and infant welfare clinics. Group teaching is regularly carried out with the help of films and film strips.

A new feature of the ante-natal clinic is the parentcraft club. This consists of seven lectures to expectant mothers including two evening sessions for mothers and fathers. The health visitor, nutritionist, midwife and sometimes the doctor, co-operate as a team in giving this course.

## **Work in Nursery Schools and Classes**

The health visitor pays regular visits to nursery schools and classes for the purpose of keeping the children under observation and treating minor ailments. She also attends the medical inspection with the doctor.

## **Refresher Courses**

In May, ten health visitors joined a refresher course held at Duffryn House, Cardiff, and in early September another ten health visitors attended a course held in Bristol and were joined by ten from Glamorganshire.

This was a reciprocal arrangement between Glamorganshire and Bristol and was much appreciated by both the Glamorganshire and Bristol health visitors.

## **Surveys**

Valuable work is done by the health visitors in carrying out surveys and their co-operation is appreciated in the training of health visitors, student teachers, social science and medical students.

## **Clinic Nurses**

At the end of 1954 the establishment of clinic nurses was five full time and 33 sessional. These are State Registered Nurses and carry out routine duties in clinics, thus relieving the health visitors for their more specialised duties.

Four of the full time nurses have received instruction and carry out haemoglobin tests in respect of patients who attend ante-natal clinics.

## **Tuberculosis Visitors**

During 1954 the establishment was increased from seven tuberculosis visitors to ten, and in addition a sister in charge of the Chest Department was appointed.

There has been a considerable increase in the clinic work during the year and the tuberculosis visitors are also going into the schools to assist with Mantoux tests and giving of B.C.G. vaccination where necessary to thirteen year-olds. Because of the increase in staff there has been a natural increase in home visits. In 1953, 8,199 home visits were paid. In 1954 the figure was 10,613.

## **Physiotherapists**

An establishment of three full-time and one part-time physiotherapists has been maintained during 1954.

Their work includes artificial sunlight, remedial exercises, massage and relaxation classes, in connection with pre-school children, school children and expectant mothers.

## **Dental Attendants**

A full establishment of eleven has been maintained during the year.

## **Adult Helpers**

In 1954 the Local Authority was made responsible for the distribution of welfare foods in the various clinics. It was, therefore, found necessary to increase the establishment of adult helpers to meet this need.

A needle service has also been put into operation which requires the full time of two adult helpers.

The duties of the adult helpers also include treatment for scabies, cleansing of verminous heads, assisting in treatment of minor ailments and escorting children to and from residential schools and nurseries.

## **Clinic Assistants**

These are girls between the ages of sixteen and eighteen years who are desirous of taking up nursing as a career and who wish to fill profitably the gap between school leaving age and entry into hospital for training.

They are mostly Grammar School girls with the General Certificate of Education, but Secondary Modern "A" stream girls are not excluded. These girls are very keen, and give useful service to the Department.

At the end of 1954 there were 36 clinic assistants employed by the Department.

During 1954, 27 left for the following reasons :—

- 17 To take hospital training
- 1 To take Nursery Nurse training
- 1 To take occupational therapy
- 3 Unsited to nursing
- 3 Health
- 2 Left the City.

## (ii) HOME NURSING SERVICE

Miss G. M. Grazier

(Senior Superintendent, Bristol District Nursing Association)

	1954	1953
Number of cases on books 1st January .. ..	1,608	1,464
Number of new cases attended during the year ..	8,623	9,075
Total ..	<u>10,231</u>	<u>10,539</u>
Cases sent by :—		
Doctors .. .. .	6,513	7,104
Hospital Authorities .. .. .	1,275	1,083
Maternity & Child Welfare Authorities ..	83	70
Employers .. .. .	3	1
Brought to notice of nurse .. .. .	32	25
Applications made from patients' friends ..	717	792
Total number of visits paid to all cases .. ..	269,187	248,386
Night calls—visits between 8 p.m. and 8.30 a.m.	1,948	803

## Staff

On 31st December members of the staff numbered 110 as follows :—

- 60 Queen's Nursing Sisters.
- 6 Male Queen's Nurses.
- 9 State Registered Nurses.
- 12 State Enrolled Assistant Nurses.
- 15 Student Queen's Nurses.
- 8 Part Time Relief Staff.

Transport consisted of :—

- 17 Association cars
- 28 Association bicycles.
- 25 Private cars.
- 6 Assisted cycles.
- 18 Cycles.

The work throughout the year has shown a steady increase. We are grateful to the members of the Housing Department for allowing us accommodation when requested on the new housing estates ; this has



ensured a nurse living on the estates, thus saving time and expense in travelling.

### **Refresher Course**

The Bi-Annual Refresher Course for the staff was held from April 5th-9th. The Medical Officer and members of his staff helped in this and the lectures were very much appreciated.

### **Visitors**

Several overseas visitors came to see and hear something of the domiciliary work and administration.

### **Talks**

Talks on District Nursing have been given by members of the administrative staff to Student Nurses at the Children's Hospital, State Enrolled Assistant Nurses at Snowdon Road, Hospital, to several women's organisations connected with churches in the city, and also to the Home Helps.

Health Visitor Students have visited with the nurses and throughout the year there has been cordial co-operation between members of the Health Department and the District Nursing Association.

### **Training**

Thirty Nurses took their Queen's Training during the year, 18 for Counties, 12 for Staff. Counties included, Somerset, Devon, Pembrokeshire, Brecon, Lincolnshire, Shropshire, Gloucester, Leicestershire, Nottinghamshire. All were successful in passing the examination for Queen's Nurses.

### **Loan Service**

Many of our patients continue to derive great benefit from the adequate loan service, the loan of linen and the work of the Home Help Department is much appreciated.

## **(iii) THE HOME HELP SERVICE, 1954**

Miss P. Walton  
(*Home Help Organiser*)

The value of the Home Help Service to the community is becoming more manifest now that it is widely known and people apply confidently for help when sickness strikes the home and there is no one else to whom they can turn in their difficulty. Many mothers, ill and in bed, have said "I feel I can relax now that the home help is here and I know the family and the home are being looked after." One young mother said of the home help "She makes me feel so safe."

Unfortunately, with a limited service, it is not possible to help everyone in need in a city the size of Bristol and it is distressing, when there is only one home help available, to have to decide between the rival claims of two or three applicants knowing that each one should have help. The decision has to be made on the medical diagnosis, the number of children and their ages, whether there are any relatives able to help and on the home circumstances.

Over 2,000 families were helped during the past year, almost double the number for 1953 and the demand continues to grow. Home confinements, sudden illness of a mother, mothers just returned from hospital who must not overtax themselves at a critical time, people living alone, ill and with no one to care for them, children left when a mother goes to hospital, T.B. patients sent home on complete bedrest, people with inoperable cancer or crippled with rheumatoid arthritis and perhaps most pathetic, old people who have outlived relatives and friends and who live alone.

To many of these old people the district nurse and the home help are their only contact with the outside world and often their only interest in life.

With such varied and responsible cases to be covered the necessity for the recruitment of the best type of woman to be home helps can be recognised. It is essential that they should not only be hard-working, good housewives and cooks but that they should be tactful, understanding, able to adapt themselves to the varied personalities with whom they come in contact and fit into the different types of homes in which they have to work. A number of women who, when appointed, seem eminently suited for the work, fail to meet the exacting demands of the Service and new appointments are continually being made to cover resignations and to meet the ever growing demand for the Service.

The statistics are as follows :—

#### Cases attended during the year 1954

Confinements .. .. .	160
Young children .. .. .	170
Acute sickness .. .. .	119
Aged and infirm or chronic .. .. .	1,486
Tuberculosis .. .. .	77
Total .. .. .	2,012

#### Number of Home Helps employed as at 31st December, 1954

Full-time .. .. .	12
Part-time .. .. .	370

#### Case hours

	Full Cost	Part Cost	Free	Total
Panel 1 ..	3,941	5,156	511	9,608
Panel 2 ..	2,869	8,474	3,168	14,511
Panel 3 ..	2,007	2,591	1,039	5,637
Panel 4 ..	1,774	76,011	200,250	278,035
Panel 5 ..	717	5,061	7,262	13,040
	11,308	97,293	212,230	320,831

January/December, 1954



## 4. DENTAL CARE

W. H. B. Stride  
(*Senior Dental Officer*)

### Mothers and Young Children

Dental examination was carried out for expectant and nursing mothers and young children at six health clinics during the year. Three hundred and nine sessions were devoted to that side of the work.

Treatment is offered to those selected by the doctors at ante-natal and post-natal clinics and to patients requesting treatment or sent up by the nursing staff and health visitors. Emergency treatment is available at all times.

The number of mothers inspected was 836 as against 888 last year and the number treated was 669 as against 591 in 1953.

### Staff

The staff of full-time officers was reduced to six in July by the retirement of Mrs. Bentz who has been a keen member of the staff for 24 years and whose work has been very much appreciated.

It will be seen that the problem of staffing is still serious and although the number of sessions given by part-time practitioners is nearly the equivalent of 2 full-time officers we are still unable to staff the clinics available.

Every effort is being made to get more full-time or part-time help as soon as possible.

### Dentures

Provision has been made for the supply of dentures and 111 mothers have attended during the year. One hundred and sixty-four dentures have been supplied in addition to some repairs.

### Oral Hygienist

The work of the oral hygienist is found to be of increasing value as the mothers come to realise that the old superstition that teeth are lost as a result of pregnancy is entirely incorrect, if proper care is taken of the teeth at this time.

The number of scalings and gum treatments carried out for mothers during the year was 1,302: the instruction in oral hygiene given at these visits is probably the most important part of the work, as it is not so much the particular treatment given at any one time but the aim is to make the patient "tooth conscious" which, if successful, results in future regular visits to the dentist.

5. THE MENTAL HEALTH SERVICES

H. Temple Phillips  
(Chief Assistant Medical Officer)  
and  
F. Morton.  
(Supervising Officer)

Mental Health Services Sub-Committee, 1954

- Alderman Mrs. C. M. Keel
- Councillor A. J. Allen (until May, 1954)
- „ Mrs. A. M. Chamberlain (from May 1954)
- „ W. W. Clothier
- „ E. A. S. Crocker
- „ J. D. Fisk (from May, 1954)
- „ A. Maddison (Chairman) (until September 1954)
- „ R. C. Mansfield
- „ Mrs. A. E. Nutt (Chairman from September, 1954)
- „ Miss J. Stephen (from November 1954)
- „ the Rev. Canon A. M. Stockwood, M.A.

Introduction

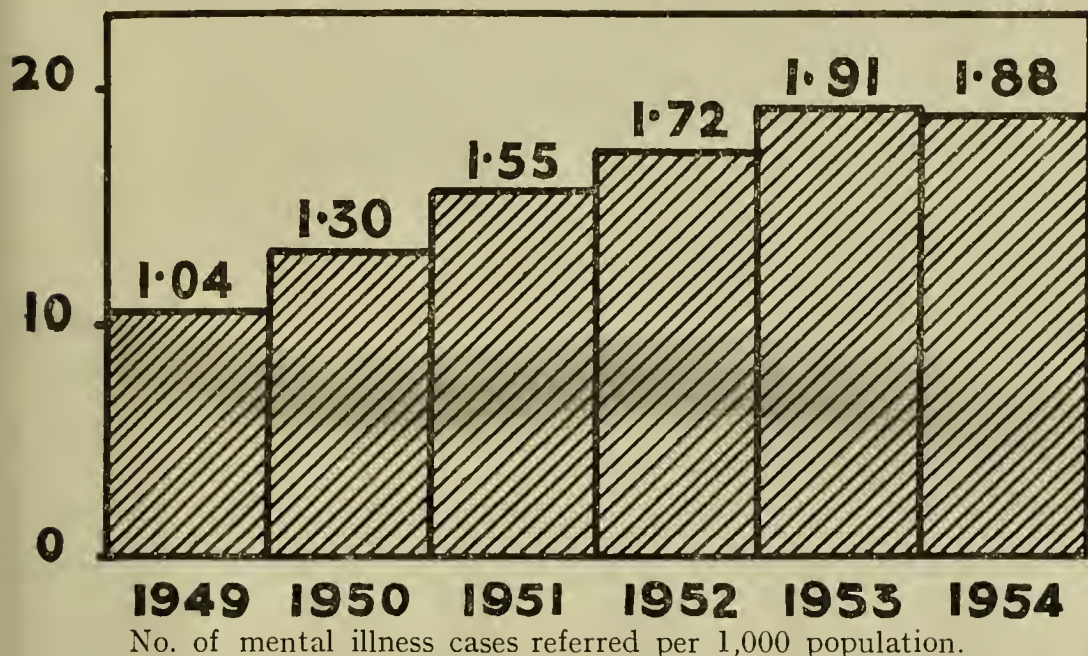
The year 1954 was the sixth complete year during which the Mental Health Services have been administered on the present basis (i.e., in accordance with Section 51 of the National Health Service Act, 1946). The following figures, taken from the Bristol annual reports for the past six years, are of interest as indicating recent trends in the incidence of mental illness and mental deficiency.

Year	Mental Illness Cases Referred during Year		Mental Deficiency		
	Total	Rate per 1,000 population	No. of cases referred during year	All known cases	
				Total	Rate per 1,000 population
1949	456	1.04	90	1,520	3.46
1950	573	1.30	108	1,678	3.80
1951	685	1.55	117	1,765	3.99
1952	763	1.72	84	1,817	4.10
1953	848	1.91	137	1,811	4.09
1954	837	1.88	125	1,847	4.15

These figures tend to suggest that the incidence of mental ill-health is increasing year by year—though there was a slight drop in the number of mental illness cases referred in 1954. No doubt part of the increase is explained by the fact that the public has become more aware of the

facilities available, and is making more use of them—and thus more cases are coming to our notice. Even allowing for this, however, the position is far from reassuring.

The most striking of the figures given are those for the number of cases of mental illness referred each year. These are illustrated graphically in the following chart.



The highlight of 1954, so far as the Mental Health Service is concerned, was the opening in June of the new occupation and industrial centre buildings. This is referred to later in the report.

The problem of mental ill-health constitutes a major challenge to the public health services, and much attention has continued to be paid to measures aimed at its prevention. For this reason it is particularly pleasing to report the appointment of a psychiatric social worker in the Health Department. There is an increasing appreciation that much mental ill-health has its roots in early childhood, and we believe that the psychiatric social worker has an important part to play in conjunction with the health visitor in educating and guiding parents in the management of young children.

Revised proposals for carrying out the Council's Mental Health Services have been prepared for submission to the Ministry of Health, which, if approved, will permit the prevention and after-care services to be expanded.

## Establishment and Staff

### *Medical*

The Chief Assistant Medical Officer is responsible to the Medical Officer of Health for the medical direction of the Mental Health Services. Other full-time medical officers in the Department, and certain medical practitioners employed on a part-time basis, also undertake duties in connection with the Mental Deficiency and the Lunacy and Mental Treatment Acts. The services of consultant psychiatrists are available by arrangements with the South-Western Regional Hospital Board and the Board of Governors of the United Bristol Hospitals.



*Non-Medical*

	<i>Establish- ment</i>	<i>Staff at 31.12.54</i>
Supervising Officer (Duly Authorised) ..	1	1
Assistant Supervising Officers( .. ) ..	6	6
Mental Health Visitors .. ..	2	2
Clerks .. ..	6	6
Psychologist (part-time) .. ..	1	1
Nursing Sister ( .. ) .. ..	1	1
Psychiatric Social Worker .. ..	1	1
Speech Therapist (part-time) .. ..	1	—
Teacher of the Deaf ( .. ) .. ..	1	—
Occupation Centre Supervisor .. ..	1	1
Deputy Occupation Centre Supervisor .. ..	1	—
Occupation Centre Asst. Supervisors .. ..	8	9
Industrial Centre Senior Instructor .. ..	1	1
Industrial Centre Junior Instructors .. ..	2	2
Handyman-Caretaker (resident) .. ..	1	1
Guides (part-time) .. ..	6	6
Domestic Helpers (part-time) .. ..	4	4

Miss M. E. Astley was appointed to the post of psychiatric social worker on the 1st October, 1954.

Mrs. E. Delaney, mental health visitor, resigned on 22nd July, 1954, the vacancy being filled by Mrs. M. Vaughan on 13th September, 1954.

Of the occupation centre assistant supervisors, Mrs. L. V. M. Wiles left to take up an appointment as occupation centre supervisor elsewhere, and Miss J. F. Randall was granted one year's leave of absence to attend a course of training in London for the National Association for Mental Health's Diploma for occupation centre supervisors. Mrs. M. Betty and Mrs. J. Insall were appointed during the year.

Mrs. J. Vant, B.A., was appointed as part-time psychologist on 23rd November, 1954.

The posts of speech therapist and teacher of the deaf were still vacant at the close of the year.

Two members of the staff attended a refresher course in mental health arranged by the University of Bristol in collaboration with the Central Council for Health Education.

### **Mental Health Conference**

The Chairman of the Mental Health Services Sub-Committee and the Chief Assistant Medical Officer of Health attended the Annual Conference of the National Association for Mental Health in March, 1954 as delegates of the Health Committee.

### **Mental Deficiency**

One hundred and twenty-five fresh cases of mental deficiency were referred to the Mental Health Service during 1954, and the total number of known cases at the end of the year stood at 1,847. This represents an incidence of 4.15 per 1,000 of the population. Detailed statistics are given at the end of this report.

Visitation of defectives under supervision was continued throughout the year, and in eight cases institutional care was arranged. No fresh cases were placed under guardianship. In addition quarterly visits were paid to 113 patients (53 male and 60 female) receiving friendly after-care.

Good use was made of the provisions of Ministry of Health Circular 5/52, and short-term hospital care was arranged for sixteen cases during the year. Such admissions are arranged only when necessitated by special domestic circumstances, of which the following are instances :—

- Girl aged 24 ; mother underwent severe operation with prolonged convalescence ;
- Girl aged 4 ; father died suddenly, mother confined ; no one at home able to provide necessary care ;
- Girl aged 2½ ; constant care required ; father injured in accident and mother's health affected ;
- Boy aged 17 ; severely spastic, mother in plaster for back injury, unable to provide necessary attention ;
- Boy aged 2 ; of low imbecile grade, needing constant attention ; health of parents affected.

All cases were admitted to local mental deficiency hospitals, and thanks are due to the medical superintendents for their ready co-operation. However, with the increasing demand for short-term care, and the shortage of hospital beds, it is evident that the use of other types of accommodation will have to be considered.

As was mentioned in last year's annual report, a hostel for mental defectives is badly needed in Bristol. This would permit many patients at present in hospital to live and work in the community. It is hoped that ministerial approval of the Council's revised proposals for the Mental Health Service will soon make possible the provision of such a hostel.

### **Occupation and Industrial Centre**

The new extensions at Marlborough House, referred to in last year's annual report, were officially opened by the Hon. W. S. Maclay, C.B., O.B.E., M.D., M.R.C.P., D.P.M., Senior Medical Commissioner to the Board of Control, on 1st June, 1954 ; the Lord Mayor of Bristol, Alderman G. G. Adams, presided. The premises came into full use later in the month. The extension to the occupation centre, consisting of a completely new block on the site of 10 Kingsdown Parade, and used as a nursery unit, comprises four classrooms, a room for the use of speech therapist, psychologist, etc., and boys' and girls' cloakrooms, etc. The extension to the industrial centre provides a new carpentry shop, and relieves overcrowding in the existing industrial centre premises (see photographs facing page 36). The extensions, although of a temporary character, will remain in use until the long-term plan for a completely new centre, on the outskirts of the City, can be fulfilled. The total accommodation now available, both in the older part of Marlborough House and the new extensions, allows for a total attendance of 220. The number on the register at the end of 1954 was 219, with an average daily attendance of 175.

The occupation centre curriculum is constantly being revised and extended, and includes eurhythmics, percussion bands, country dancing, action singing, games and exercises, and the use of various types of sense training apparatus. Classes in Margaret Morris Movement were introduced during the year. In addition, much time is devoted to suitable handicrafts, such as cane work, rug-making, mat-making, weaving, and felt work. Classes are kept, as far as possible, at approximately fifteen children to one teacher.



The industrial centre caters for those over sixteen who have been found unsuitable for employment in the community. There are three workshops for the male patients, where the crafts of carpentry, basket making, boot and shoe repairing, brush making, painting and decorating, and mat making are practised. Simple machinery has been provided such as a lathe and general purpose machine in the carpentry shop, and a finishing machine in the boot and shoe repair shop.

The older girls are occupied in handicrafts and sewing classes, and are also taught domestic work. Modernisation of the kitchen block was carried out during the year, so that training in cookery, laundry and other home tasks can now be undertaken.

The use of Vis-man training apparatus was introduced during the year. This develops visual accuracy and manipulative skill, and is equally suitable for boys and girls. It is designed to give special training in discrimination and selection of colour and form, and is based on such everyday factory techniques as sorting, assembling, and packing. The training is given to all children of fifteen to sixteen years of age who, in the opinion of the medical director and the psychologist, may be capable of some simply form of employment.

The Youth Employment Officer visits the centre at the end of each term and interviews selected cases with their parents with a view to finding suitable employment where possible.

By arrangement with the Baths Committee, parties of children and adults from Marlborough House now attend the local swimming baths once a week.

Parties from Marlborough House, accompanied by members of the staff, again attended the Bristol Youth Committee's camp at Brean Down, for the following periods:—44 older boys from the 12th to 26th June; 35 girls and younger boys from the 3rd to 17th July.

Social activities continue to play a prominent part in the life of the centre, and events during 1954 included the crowning of the May Queen, Harvest Thanksgiving Service, Open Day, and at Christmas a pantomime (The Three Bears) and Nativity play. Christmas parties were also arranged, when a pantomime was presented by the Staff and presents were distributed to all attending the centre.

The 72nd Bristol (Marlborough House) Troop of Scouts and Cubs is now 37 strong (25 scouts and 12 cubs). Weekly meetings were held throughout the year, and the camp at Brean Down provided good opportunities for outdoor training.

The 68th Bristol (Marlborough House) Company of Girl Guides consists of 12 guides and 19 rangers, and is at present the only occupation centre extension girl guide company in the country. Weekly meetings have continued, and special activities have included a Thinking Day ceremony on the 23rd February; the District Services at Victoria Methodist Church on the 28th February, when a colour-party of Marlborough House rangers carried the World Flag; and a combined parade of guides, rangers, scouts and cubs on the 1st June at the opening of the new extensions at Marlborough House.

Transport is provided for children attending the occupation centre, and during the year it was found necessary for the number of coaches to be increased from five to six. A guide accompanies each coach. Those attending the industrial centre are encouraged to use public transport, and bus fares are refunded by the Local Authority.

A number of improvements were effected during the year. The dining hall has been reproofed against damp and redecorated, and extensive repairs have been carried out to the roof. Some new furniture



A carpentry class in progress in the new industrial centre workshop





Bright airy classrooms are a feature of the new occupation centre premises opened on 1st June,  
1954

has been supplied for the classrooms, and floors covered with linoleum. Through the generosity of friends of Marlborough House, and of the Bristol Aquarist Society, tanks of tropical and cold water fish have been installed in various rooms, and the gift of budgerigars has encouraged the men in the industrial centre to erect and equip an aviary. This affords great delight to the children and has evoked much admiration from visitors.

The high esteem in which Marlborough House is held is clear from the number of visits paid by representatives of local health authorities and others interested in mental health. Overseas visitors during 1954 came from as far afield as Norway, Yugoslavia, Turkey, Chile, Tanganyika and the Sudan.

Appreciative letters from parents are always a source of encouragement to the staff, and the following are extracts from such letters received during the year:—

“ We would like to say ‘ thank you ’ to you and all the staff for kindness and help to our boy during the year. This means much to us, as each year he has improved at Marlborough House. The Christmas plays, particularly, prove how well the children are trained, for it must be very hard work.”

“ It has been a great delight to us that our boy has lately been feeding himself with spoon and fork. This is a great step forward, and one which we had almost despaired of ever seeing accomplished. We realise this means that there has been great patience and understanding shown by the staff, and we are grateful. Our boy is still a handful, but one improvement leads to another.”

“ I should like to take this opportunity of thanking you all for the wonderful progress our boy has made during the years he has been with you, and above all for the happy life he enjoys at the Centre.”

“ My wife and I feel that we must thank you and your staff at Marlborough House for the kindness shown to our son whilst he was with you. It is some time since he was so happy and contented.”

The Marlborough House Parent-Teacher Association now has 120 members and provides a valuable link between parents and staff. Monthly meetings are held, which take the form of lectures, discussions and social events. The provision of a 16 mm. projector through funds raised by the Association, was referred to in last year's report, and good use has been made of this apparatus during the year.

## **Mental Illness**

The duly authorised officers are responsible for taking initial action, where necessary, under the Lunacy and Mental Treatment Acts, and as already noted, the number of cases referred to them was only slightly short of last year's record figure. The officers work in very close co-operation with the general medical practitioners, and patients in need of hospital treatment are always encouraged in the first instance to attend psychiatric out-patient clinics with a view to becoming voluntary patients.

Failing this, the usual procedure is for patients to be admitted to an “ observation ward ” under Section 20 of the Lunacy Act, 1890. Thanks are due to the South-Western Regional Hospital Board and to the Stapleton Hospital Management Committee for the excellent facilities provided in this respect. A new observation unit at Stapleton Hospital was opened in November, 1954.

Full statistical details of mental illness are given at the end of this report, and a map is included showing the geographical distribution of Bristol cases dealt with during the five years ended 31st December, 1954. It is of interest to compare this with the map showing the distribution of mental deficiency which was published in last year's report. The highest incidence of mental illness is in the Clifton-Cotham area and in Bedminster. These were not areas where the incidence of mental deficiency was high. Southmead, where the mental deficiency rate was high, does not show an undue incidence of mental illness, while in Knowle West both rates are high. It is not possible to draw any valid conclusions from these differences without considering such factors as the age structure of the population in each area, but the subject offers an interesting field for further research.

### After-care

Thirty-one psychiatric cases already receiving after-care continued to be visited, and fifteen new cases were referred during the year. Of the latter, nine were members of H.M. forces discharged on account of psychosis or neurosis, and four were patients discharged from mental hospitals as "relieved". Usually the main problem in such cases is that of finding suitable employment with a sympathetic employer. This is sometimes preceded by a course of training at the Industrial Rehabilitation Unit. A close liaison exists between the Mental Health Service and the Disablement Resettlement Officers of the Ministry of Labour and National Service.

The Diversional and Social Therapy Centre at Southmead Health Clinic, the inception of which was described in last year's report, has continued to make progress during 1954. Twenty-four patients have been on the register, and 1,110 attendances have been made. The Centre is open on three afternoons each week, and voluntary help in caring for patients is provided through the good offices of the Bristol Council of Social Service. Cases have been referred to the centre from the following sources:—

National Assistance Board	..	..	..	8
Hospital almoners	..	..	..	3
Youth Employment Officer	..	..	..	2
Psychiatric social worker	..	..	..	2
General medical practitioner	..	..	..	1
Family Service Unit	..	..	..	1
Marriage Guidance Council	..	..	..	1
Maternal and Child Welfare Section	..	..		1
Minister of Labour	..	..	..	1
Cases already known to Mental Health Service				9

In five of these cases it was impossible, for various reasons, to arrange for the patient to attend.

### Prevention

The prevention of mental ill-health is one of the most formidable of the problems facing the public health services, and is not one which is capable of quick solution.



One approach to the problem is by encouraging persons suffering from mental strain in its early stages to seek advice before real illness develops. Such advice is always freely available at the headquarters of the Mental Health Service, and patients are also encouraged to consult their own doctors. It is found, however, that people are very reluctant to seek early help in this way, and there is no doubt that Marlborough House, associated as it is with the occupation centre, is far from being an ideal place for a mental health advisory bureau. What is needed is a headquarters for the Mental Health Service in a central position quite apart from the occupation and industrial centres.

Adverse environmental circumstances, such as lack of adequate housing and unsatisfactory working conditions, undoubtedly play a big part in aggravating and precipitating mental breakdown, and all the social services, both statutory and voluntary, have an important contribution to make in this respect.

The root causes of mental illness are complex and obscure, and often impossible to assess for the individual case. Heredity often plays its part, but psychiatrists and psychologists are paying increasing attention to the child's experiences in the very early years of life as affecting the development of its mind. Lack of essential needs—such as affection and security—may cripple the child's capacity to make adequate relationships with its fellows, and lay a foundation for mental illness in later life. Thus it may well be that the widest scope for preventive mental health lies in the maternal and child welfare field. A psychiatric social worker has now joined the staff of the Mental Health Service, and spends four half-days per week in selected infant welfare clinics. Preventive work of this kind, however, cannot be left to specialised officers, and calls for the active co-operation of all those concerned in maternal and child welfare work—in particular the health visitors.

Health education in the mental health field is of great importance, and every opportunity is taken of publicising the work of the Mental Health Services. The "stigma" attaching to mental illness dies hard, but there are signs of a healthier outlook among the general public. The objectionable words "lunatic" and "asylum" are heard less and less often, and there is a growing understanding that mental patients are not "put away" for custodial care but admitted to hospital for treatment just as they might be for physical ailments.

### **Mental Health in Old Age**

The increasing proportion of elderly people in the population has accentuated the problem of so-called "senile dementia". When mental deterioration accompanies old age, it should be regarded as part of the natural process of growing old, and not classed as mental illness in its usually accepted sense. For this reason it has long been the policy of the Health Department to avoid wherever possible dealing with such patients under the provisions of the Lunacy and Mental Treatment Acts. Gross disorder of behaviour sometimes leave no other course open, but fortunately such cases are in the minority. The following table relates to elderly persons referred to the Mental Health Service during 1954, and shows how they were dealt with:—

Age Group	Dealt with under the Lunacy and Mental Treatment Acts.			Referred for other care (e.g., to health visitor)	No further action required	Total
	Certified	Voluntary	Temporary			
70—74	10	9	1	21	22	63
75—79	12	8	2	29	25	76
80—84	3	2	1	24	18	48
85—89	1	1	2	10	6	20
90—94	—	—	—	3	1	4
Total	26	20	6	87	72	211

## Suicide

The incidence of suicide and attempted suicide is closely related with that of mental illness and the following figures show the number of suicides reported to the Coroner and the number of attempted suicides reported to the police during the years 1946 to 1954. They relate only to Bristol residents who committed or attempted suicide in Bristol.

Year	Suicides	Attempted Suicides	Total
1946	42	46	88
1947	42	35	77
1948	43	45	88
1949	45	31	76
1950	35	46	81
1951	42	42	84
1952	60	45	105
1953	52	56	108
1954	65	31	96

Of the 65 suicides during 1954, 36 were male and 29 female.

The following table shows the methods adopted:—

	Suicide		Attempted Suicide		Total
	Male	Female	Male	Female	
Poisoning—Coal gas .. .. .	19	21	4	4	48
„ —aspirin .. .. .	—	1	1	2	4
„ —phenobarbitone .. .. .	1	1	—	—	2
„ —narcotic .. .. .	3	1	—	—	4
„ —unspecified “tablets” ..	—	—	2	3	5
„ —metal polish .. .. .	1	—	—	—	1
Drowning .. .. .	—	2	3	2	7
Hanging .. .. .	4	1	1	—	6
Jumping from rocks .. .. .	4	1	—	—	5
„ „ bridge .. .. .	1	1	—	—	2
Razor slashing (arms and wrists) ..	—	—	—	4	4
Cut throat .. .. .	1	—	1	1	3
Jumping under vehicle .. .. .	—	—	1	1	2
Burning .. .. .	—	—	1	—	1
Shooting .. .. .	1	—	—	—	1
Electrocuting .. .. .	1	—	—	—	1

## Conclusion

We wish to express our appreciation to the Regional Hospital Board and Hospital Management Committees, the medical officers of the mental and mental deficiency hospitals and clinics, and to the general practitioners of Bristol, for their ready help and co-operation during the year; and to all the members of our own staff for the loyal and conscientious way in which they have continued to carry out their duties.

Our thanks are also due to the members of the Mental Health Services Sub-Committee for the very keen interest they have taken in all the section's activities throughout the year.

### Statistical Tables

#### (i) Total Number of Mental Defectives known to the Local Health Authority on 31st December, 1954.

	Male	Female	Total
In Institutions and on licence .. ..	333	324	657
Under guardianship ..	27	19	46
Under supervision ..	538	434	972
Pending formal ascertainment .. ..	37	22	59
Discharged from order to friendly oversight	53	60	113
Total .. ..	988	859	1,847

Rate per 1,000 population .. .. 4.15  
 No. awaiting admission to institution.. .. 1 (female)  
 Not included—No. of children ascertained by  
 Local Education Authority as educationally  
 sub-normal .. .. 554

#### (ii) Cases Referred as Mentally Defective during 1954.

Referred by :—

Local Education Authority .. ..	60
General practitioners .. ..	5
Police courts .. ..	1
Others .. ..	59
Total .. ..	125

Disposal :—

To hospitals and institutions .. ..	8
To guardianship .. ..	0
To supervision by Bristol L.H.A. .. ..	56
Died .. ..	2
Action not yet taken (school leavers).. ..	10
Action not yet taken (other than school leavers)	49
Total .. ..	125

**(iii) Mental Defectives Discharged from Care during 1954.**

	<i>Male</i>	<i>Female</i>	<i>Total</i>
From hospitals and institutions—			
By authority of Board of Control..	8	11	19
By operation of law .. .. .	2	0	2
From Guardianship—			
By authority of Board of Control..	2	0	2
By operation of law .. .. .	1	1	2
From supervision—			
By Local Health Authority.. ..	8	18	26
<b>Total</b>	<b>21</b>	<b>30</b>	<b>51</b>

**(iv) Mental Defectives who Died during 1954.**

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Whilst in hospitals or institutions ..	3	4	7
Whilst under guardianship .. .. .	0	0	0
Whilst under supervision .. .. .	0	3	3
<b>Total ..</b>	<b>3</b>	<b>7</b>	<b>10</b>

**(v) Mental Illness : Bristol Patients in Mental Hospitals on 31st December, 1954.**

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Certified .. .. .	427	625	1,052
Voluntary .. .. .	207	294	501
Temporary .. .. .	2	6	8
<b>Total</b>	<b>636</b>	<b>925</b>	<b>1,561</b>
In Dundry Villas Neurosis Unit ..	41	38	79

**(vi) Mental Illness : Cases Dealt with by Duly Authorised Officers during 1954.**

	<i>Male</i>	<i>Female</i>	<i>Total</i>
<i>A. Removed to Stapleton Hospital under Section 20 of Lunacy Act, 1890 :—</i>			
Transferred to Bristol Mental Hospital as certified patients .. .. .	49	72	121
Transferred to other mental hospital as certified patients .. .. .	8	10	18
Transferred to Bristol Mental Hospital as voluntary patients .. .. .	36	80	116
Transferred to other mental hospital as voluntary patients .. .. .	13	4	17
Transferred to Bristol Mental Hospital as temporary patients .. .. .	7	12	19
Provided with care other than under Lunacy and Mental Treatment Acts ..	43	38	81
<b>Total</b>	<b>156</b>	<b>216</b>	<b>372</b>









	Male	Female	Total
<i>B. Not dealt with under Section 20 of Lunacy Act, 1890 :—</i>			
Certified direct admissions to mental hospitals .. .. .	7	18	25
Voluntary direct admissions to mental hospitals .. .. .	57	110	167
Temporary direct admissions to mental hospitals .. .. .	0	5	5
Provided with care other than under Lunacy and Mental Treatment Acts	125	143	268
Total	189	276	465
Total cases dealt with ( <i>A</i> and <i>B</i> )	345	492	837
Total certified admissions .. .. .	64	100	164
Total voluntary admissions .. .. .	106	194	300
Total temporary admissions .. .. .	7	17	42
Total provided with care other than under Lunacy and Mental Treatment Acts .. .. .	168	181	349
Total	345	492	837

(vii) **Persons Receiving Psychiatric After-Care from Local Health Authority on 31st December, 1954.** *l*

	Male	Female	Total
Ex-Service patients .. .. .	34	0	34
Others .. .. .	6	6	12
Total	40	6	46

## 6. PREVENTION OF ILLNESS, CARE AND AFTER CARE

### (i) TUBERCULOSIS

A. M. McFarlan

(*Senior Medical Officer, Epidemiologist for Tuberculosis*)

During 1954 two new measures for the control of tuberculosis were introduced in Bristol. Vaccination with B.C.G. was offered to susceptible 13-year old children and tuberculin testing was carried out at routine examinations of young children on entry to school and at child welfare clinics and nurseries.

#### B.C.G. Vaccination of 13-Year Old School Children

The Council's scheme for B.C.G. vaccination of school children was approved by the Ministry of Health during 1954 and by the end

of the year 750 children aged 13 had been vaccinated. Details of the scheme are given in the report of the School Health Service. The satisfactory start which has been made gives reason to hope that B.C.G. vaccination of this age group will make a valuable contribution to the prevention of tuberculosis in young adults in future years.

The tuberculin tests which precede vaccination have given information about the incidence of infection among children in each school. In one school this was above the average of 17 per cent, and arrangements were made for early X-ray examinations of teachers under the Education Authority's voluntary scheme. No case was discovered among them.

### Tuberculin Testing of Young Children

At routine examinations of school entrants and of younger children at child welfare clinics and nurseries, doctors have obtained the mother's consent for a tuberculin jelly test. They then applied the tuberculin jelly and a control jelly, using flour paper only in the case of the school entrants. The results were read by health visitors, who had been instructed in the test and who referred any doubtful cases to a doctor. Where a positive reaction was obtained, any other children in the family were tested and all the reactors and the mother were X-rayed and examined at the Central Health Clinic. Attendances for these examinations were very satisfactory. Other adults in the family were offered appointments for a chest X-ray at the Mass Radiography Unit and 60 per cent attended for examination. Forty per cent failed to attend although two appointments were offered.

In 8,643 children tested, 111 were found to be tuberculin positive. Four previously unknown cases of tuberculosis were found among the adults who were X-rayed.

The percentage of reactors was 0.8 among the pre-school children and 1.6 among the school entrants. Table 1 shows that the incidence of positive results was higher in the older children, and slightly, but not significantly, higher in boys than in girls.

Table 1.

Age Years	Males		Females		Both Sexes		Per cent Positive
	Tested	Positive	Tested	Positive	Tested	Positive	
<i>Child Welfare Clinics and Nurseries</i>							
1	34	0	31	0	65	0	—
1	239	3	242	2	481	5	1.0
2	421	3	393	2	814	5	0.6
3	490	3	441	5	931	8	0.9
4	464	6	471	1	935	7	0.8
5	182	1	220	4	402	5	1.2
Total	1,830	16	1,798	14	3,628	30	0.8
<i>School Entrants</i>							
5	578	10	565	7	1,143	17	1.5
6	1,760	35	1,737	29	3,497	64	1.8
7	166	0	176	0	342	0	—
8	16	0	17	0	33	0	—
Total	2,520	45	2,495	36	5,015	81	1.6

The percentage of reactors was higher among the brothers and sisters of the reactors found at routine examinations. In 67 aged 0-4 years there were 9 reactors (13.4 per cent); in 41 aged 5-9 there were 11 (26.9 per cent); and in 35 aged 10-14 there were 9 (25.6 per

cent). These percentages are not significantly different from the percentages found in child contacts of notified cases which were 7.7, 21.5 and 38.2. There is justification therefore for concluding that in these families which were studied because one child had a positive jelly test, the children were, in fact, more often infected than in the general population. The source of infection may have been in some of the adults who failed to attend for X-ray or in an adult outside the family.

In individual schools and clinics the number of reactors was low : there were 1 or 2 in most instances and never more than 5 and the percentage of reactors was not significantly higher than in the whole population.

Distribution maps of the homes of reactors showed a wide scatter over the City with no significant grouping.

These studies indicate a low level of infection in young children throughout the City. The numbers of reactors are small and continued study in 1955 is required in order to provide an adequate picture of the distribution of infection with tuberculosis in young children.

## **Contact Examinations**

### *Household Contacts*

During 1954 the Mass Radiography Service, which does the bulk of adult contact examinations in Bristol, was able to offer more frequent sessions. This was a considerable improvement, but in 1955 when a static unit is available and provides more frequent and more regular sessions, it will be possible to ensure that a higher proportion of the contacts of notified cases do, in fact, attend for X-ray examination. Until this can be achieved the search for sources of infection cannot be considered adequate. In the persuasion of these contacts to attend, the tuberculosis visitors have an important part to play.

The static unit will also allow a greater follow up of contacts who have been or still are exposed to infectious patients than has been possible in the past.

Some of the adult contacts are X-rayed at the Chest Clinic or in a hospital, and these facilities are valuable for some contacts who cannot attend the Mass Radiography Unit sessions.

Contacts under 15 years of age are offered B.C.G. vaccination. An account of this is given by Dr. Roberts (page 51). The children who are tuberculin positive, and those whose parents refuse vaccination, are X-rayed and examined by Dr. Gibson, who contributes a report of the year's work in the School Medical Officer's section. It is intended to alter these arrangements so that all child contacts are tuberculin tested and X-rayed after the notification of a case. At present, the tuberculin negative children are given B.C.G. and X-rayed at the follow up a year later.

The results of X-ray examination of adult contacts and of tuberculin testing and X-ray of child contacts are, as a rule, more quickly available, and it is usually possible to consider the household of a notified case as a unit and decide more confidently than in the past, whether the source of infection is known, or what further investigations are necessary. In these investigations the knowledge which tuberculosis visitors have about the cases on their districts is extremely valuable. At fortnightly meetings with a chest physician and welfare officer, they are able to discuss these and other points in the clinical and environmental aspects, and to co-ordinate all available information.



### *Contacts of Cases at Work*

In a few instances the contacts of open cases at their place of work have been examined. This has not so far revealed other infected persons or a source of infection. With the static Mass Radiography Unit it will be possible to make more use of examination of work contacts, as for instance, where a non-infectious but recently infected case is discovered and no source case is found among the home contacts. Patients usually consent readily to an approach to their employers and the employers are usually very co-operative in assisting to arrange for the X-ray of those employees who are willing to be examined.

A register of the places of work of newly notified cases is maintained and serves to draw attention to firms of offices where several cases occur and where a search for other cases is indicated.

### **Mass Radiography**

During 1954 the Mass Radiography Units examined 42,612 persons in Bristol and found 148 cases of active pulmonary tuberculosis. The incidence was 3.5 per 1,000 persons examined which was slightly higher than in 1953.

In Bristol the examination of contacts and of cases referred by doctors increases the yield of tuberculosis cases, whereas the examination of school leavers decreases the yield in comparison with areas where Mass Radiography Units do not examine these groups. The incidence of tuberculosis in those examined is not therefore a satisfactory measure of the success of mass radiography where there is a variation from place to place or from year to year in the types of people examined. It is necessary, as indicated in a recent circular from the Ministry of Health, to use mass radiography selectively. It is doubtful whether annual examinations of employees is justified when only 60 per cent of them attend, and the yield of new cases is low. It is disturbing also to find that some large organisations near Bristol, with high incidences of tuberculosis, do not allow the Mass Radiography Units to examine their employees. There is need for improvement in the co-operation of employees in some factories and employers in others.

It is a pleasure to acknowledge the willingness of the Mass Radiography Units to help in Bristol as far as their other commitments allow. With a full programme arranged in advance only a real emergency can justify diverting mobile units to a relatively small group of contacts. For some such groups in Bristol, the static unit will be valuable, for others, a readily available and easily transportable unit would be a great advantage. It is easier to persuade people to be X-rayed when the examination can be carried out at once.

### **Chest X-Rays of Pregnant Women**

The Department's X-ray unit examined woman attending ante-natal clinics and several cases of tuberculosis were discovered among them. They were referred to the chest physicians for treatment or observation and B.C.G. vaccination of the infants was arranged where necessary.

### **Care and After Care**

A report by Mr. Bryant (page 53) sets out the work done by the welfare officers during the year and records the assistance provided by the Tuberculosis Voluntary Care Committee. From this source grants can be made to many patients who need more help for themselves and



their families than is available from statutory funds. Employment is provided for 12 ex-patients by the Committee. Occupational therapy and a social club are among the valuable activities of the Committee. The liaison effected by the welfare officers with all the statutory and voluntary organisations which can aid the tuberculosis patient and his family is a most important part of the tuberculosis service.

### **Notifications and Deaths**

Notifications of pulmonary tuberculosis in 1954 were 39 fewer than in 1953, and they have fallen progressively since 1951 (Table 2). There was, however, an increase of 17 in the notifications in the 15-19 age group in 1954 as compared with 1953. This reinforces the argument for B.C.G. vaccination of 13-year old school children. Notifications in men over 35 were again higher than in women over 35.

TABLE 2. Tuberculosis: New Notifications by Age and Sex, 1949-1954

Age	0—		1—		5—		10—		15—		20—		25—		35—		45—		55—		65+		All Ages		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
<i>Pulmonary</i>																										
1949	1	0	6	3	11	5	2	11	34	36	36	42	60	52	47	21	48	8	22	14	12	7	279	199	478	
1950	2	0	11	9	10	12	7	9	27	40	16	48	44	43	36	19	34	12	30	11	6	2	223	205	428	
1951	1	0	10	10	10	10	9	9	27	31	45	51	54	48	47	17	52	15	27	10	11	9	293	210	503	
1952	0	0	8	6	11	5	6	16	23	41	35	36	49	61	39	29	39	8	37	7	19	5	266	214	480	
1953	0	0	10	7	14	6	2	11	21	20	28	38	44	42	28	29	46	17	30	7	16	8	239	185	424	
1954	2	0	4	2	11	9	4	11	24	34	21	27	42	45	25	24	46	8	24	2	15	6	218	168	386	
<i>Non-pulmonary</i>																										
1949	2	1	6	2	5	6	6	2	4	6	2	3	2	6	3	5	2	3	4	0	1	0	0	37	34	71
1950	2	0	3	6	7	1	3	1	2	2	2	2	4	3	4	5	2	0	0	1	0	0	29	29	51	
1951	1	2	4	1	2	3	1	3	3	4	2	4	3	6	3	0	2	0	3	0	1	3	25	26	51	
1952	0	0	2	6	5	3	3	0	3	3	2	3	2	6	3	7	2	3	2	1	0	0	24	30	54	
1953	1	0	5	2	0	1	0	0	3	6	2	5	2	3	1	4	1	0	0	0	1	1	16	22	38	
1954	0	0	2	2	4	0	1	2	2	5	2	6	4	11	0	0	1	0	0	1	3	3	19	30	49	
<i>Meningitis (included in Non-pulmonary Notifications)</i>																										
1954	0	0	1	0	3	0	0	1	2	1	0	1	0	1	0	0	0	0	0	0	0	0	6	4	10	

Notifications of non-pulmonary tuberculosis showed an increase of 11 over the previous year. The increase was mainly in women in the 25-34 year age group, and was due partly to increased recognition and notification of genito-urinary tuberculosis. The incidence of non-

# TUBERCULOSIS

## NEW CASES, 1954









## **Deaths of Persons in whom Tuberculosis was not Notified during Life**

In 1954 there were 18 instances where tuberculosis was mentioned on the death certificate of a person who had not been notified. This was the same number as in 1953.

Of the 1954 cases, 16 were pulmonary and two were non-pulmonary. Death occurred in hospital in 13 instances and at home in five instances. In one of these five the death was certified by a coroner, in the other four the certificates were signed by general practitioners. These four related to men aged 54, 60 and 69 and a woman aged 57. The tuberculosis in three cases was of long standing and had not required treatment for years. In one case the doctor had recently taken over a practice and had assumed that the patient had already been notified. Of the 13 hospital deaths, three were of inmates of a mental colony and in four other cases the tuberculosis was merely an incidental finding at post mortem. In the other six cases this diagnosis was made shortly before death or at post mortem, and one of them was reported by the pathologist.

All cases were investigated by home visits.

## **Co-operation with Hospital Services**

The location of the Chest Clinic in the Central Health Clinic gives opportunity for easy collaboration between medical and clerical staff employed by the Local Authority or by the Regional Hospital Board. Alterations in the Clinic and increases in the staff of tuberculosis visitors have aided the integration of treatment and prevention.

The Regional Hospital Board has formed a Tuberculosis Subcommittee of the Joint Advisory Committee for the Bristol Clinical Area. The Deputy Medical Officer of Health is Chairman, and the Board's Administrative Medical Officers, the Chest Physicians, the Director of the MassRadiography Unit, and the Council's Epidemiologist attend the meetings.

The waiting list for hospital admission decreased during 1954, especially for female patients. Urgent cases could usually be admitted within a few days.

The disposal of ambulant chronic infectious cases is a problem which will have to be faced for some years to come. Elderly men living on their own or in common lodging houses are a danger to the community if they are constantly or intermittently infectious. Consideration is being given to the possibility of establishing a hostel for such cases on the lines which have been found useful in London and Middlesex.

The supervision of infectious or potentially infectious patients in their homes is an important part of the duties of the tuberculosis visitors. The chest physicians are providing lists of such cases so that they and their contacts can be kept under close review.

(ii) **B.C.G. VACCINATION**

A. T. M. Roberts  
(*Consultant Chest Physician*)

Since B.C.G. vaccination of child contacts of tuberculosis was started in May 1952 a total of 2,633 children have been vaccinated. Of these, 486 were newborn infants vaccinated soon after birth by Dr. Grace Woods at Southmead and other maternity hospitals. The remainder have been vaccinated by Dr. Gibson and Dr. Sheerboom at the Central Health Clinic.

The yearly figures, given in Table 1, show that in 1954 the percentage of children found to be tuberculin negative showed another satisfactory rise on previous years to 85 per cent of those tested. The results of tuberculin tests in the separate age groups are given in Table 2. The number of young contacts over school leaving age who are tuberculin tested remains very small. These young people have X-ray examinations of their chests to exclude active tuberculous disease but it is very difficult to persuade them to take the necessary time off work to undergo tuberculin testing and vaccination. Probably over half these youngsters are tuberculin negative and entering a period of lowered natural resistance and are therefore very potential victims of tuberculous disease. We hope to concentrate more on this important age group in 1955.

The incidence of complications to B.C.G. vaccination itself remains negligible and as far as can be ascertained no case of progressive tuberculous disease has as yet arisen in the vaccinated.

**Table 1. B.C.G. Vaccination—Annual Figures**

Year	1952	1953	1954	Total vaccinated
Number tested ..	643	1,107	<b>944</b>	—
Tuberculin positive ..	161	249	<b>137</b>	—
Tuberculin negative ..	482	858	<b>807</b>	—
% negative ..	75	77.5	<b>85</b>	—
Number vaccinated ..	482	858	<b>80</b>	2,140
Newborn infants ..	115	177	<b>194</b>	486
Total vaccinated ..	597	1,030	<b>1,001</b>	2,633

### Tuberculin Test

In Bristol we have relied hitherto on the tuberculin jelly test to distinguish the tuberculin positives from the negatives and have found it reasonably satisfactory in practice. It is easily applied and avoids a needle prick but, on the other hand, the results are not easy to read even by experienced staff and false positive and false negative results have been known to occur. We have therefore decided to rely in future on the *Heaf Multiple-Puncture* method in which a small quantity of pure old tuberculin is inoculated into the skin of the arm by means of six small (1 mm.) needles released by a spring. This method has now been shown to be safe, reliable, easily read and almost painless.

We also hope that in 1955 we will be able to introduce X-ray examination of each child's chest prior to vaccination.

**Table 2. Tuberculin Test Results in Separate Age Groups**

Age	Positive			Negative and Vaccinated					
	1952	1953	1954	1952	%	1953	%	1954	%
0—1	—	1	1	42	100	92	99	130	99
1	4	5	4	32	89	51	91	66	94
2	7	1	4	55	89	65	99	53	93
3	7	10	4	53	88	81	89	46	92
4	11	12	9	52	83	60	83	69	88
5	7	15	4	30	81	86	85	56	93
6	10	13	4	34	77	73	85	55	93
7	15	14	11	28	65	59	81	53	83
8	7	9	6	31	82	44	83	38	86
9	15	31	8	12	44	40	56	49	86
10	23	18	16	24	51	36	67	29	64
11	9	23	15	10	53	41	64	28	65
12	13	21	5	11	46	31	59	35	87
13	9	25	8	7	44	23	48	24	75
14	8	10	12	9	53	24	71	24	67
15	5	16	8	6	55	15	48	8	50
15+	10	25	18	9	47	36	66	44	71
Totals	161	249	37	482	75	858	77.7	807	85

### Annual Check

In 1954 a further 667 children who had been vaccinated during 1952 and 1953 were seen. Altogether 892 children of the 1,632 vaccinated in 1952-53 have now been tested. In all but two cases no reversion to tuberculin negative had occurred and it therefore seems unnecessary to repeat the tuberculin test at the end of the first year after vaccination. We should however continue to see the children and X-ray their chests after one year and at yearly intervals thereafter if they continue to be in contact with open tuberculous infection. We also consider it unnecessary to continue to perform a routine tuberculin test eight weeks after vaccination, for in practice we find that if the local vaccination ulcer is satisfactory the tuberculin test has invariably converted to positive.

B.C.G. is now a well established and routine procedure in the prevention of tuberculosis and with very few exceptions, is accepted with equanimity by children and their parents. In 1955 we hope to make



vaccination even safer and more reliable by the use of the *Heaf Multiple-Puncture* tuberculin test and by chest X-ray examination prior to vaccination. At the same time we plan to reduce the clerical work considerably by cutting out tuberculin tests after vaccination and by holding weekly instead of monthly vaccination sessions. Finally we intend to increase our efforts to test and vaccinate where necessary those young people over the age of 15 years who are in contact with tuberculosis.

### (iii) TUBERCULOSIS—CARE AND AFTER CARE

C. L. Bryant

*(Executive Officer, Tuberculosis Service, and Hon. Secretary, Bristol Tuberculosis Voluntary Care Committee)*

#### Government Financial Assistance

Special allowances are available, under certain circumstances, to persons suffering from respiratory tuberculosis who have suffered a loss of income to undergo treatment.

These allowances are payable by the National Assistance Board upon application by the patient, and medical certification by the consultant chest physician, and are based upon scales which are higher than the standard scales of the Board.

Patients are given advice and guidance by the welfare officer in making application for allowances and are issued with application forms to forward to the National Assistance Board, whose officers visit the homes of patients and arrange for the issue of payment books—payment being drawn from the post offices.

During 1954, application forms were issued to 330 patients.

#### Extra Nourishment

This takes the form of two pints of milk per day granted free of cost by the Health Committee upon medical recommendation and subject to an income limit. A daily average of 470 patients received free milk during 1954.

Grants of milk are reviewed every three months.

#### Home Nursing Service

Home nursing is provided by the Bristol District Nursing Association on behalf of the Local Health Authority, and details of cases and visits are shown in the report on the Home Nursing Service. No charge is made to the patient for this service.

#### Domestic Help Service

Home helps for tuberculous persons are provided through the Local Authority's Domestic Help Service upon the request of the chest physician, tuberculosis visitor or welfare officer.

Payment is required for this service according to the means of the patient. A summary of the year's work is shown in the report of the Home Help Organiser.

#### Boarding out of Children from Tuberculous Families

Arrangements are made with the Children's Department for the boarding-out, or accommodating in children's homes, of children from

tuberculous families—particularly in those cases where the mother is tuberculous and there is no relative to undertake the care of the children.

Parents are required to contribute towards the cost of maintenance according to means.

During 1954, six children were taken into care by the Children's Officer.

### **Housing**

By arrangement with the Housing Committee, tuberculous persons who have applied for re-housing are supported by the Medical Officer of Health, a special investigation being made at the home of the applicant and a recommendation for additional points forwarded to the Housing Department after careful consideration of the home circumstances and the medical aspects of the case.

During 1954, 169 such persons were supported, and 104 were rehoused.

### **Interviews and Visits by Welfare Officers**

Miss M. Grigg (*Welfare Officer*), reports.

"During the year, welfare officers interviewed approximately 3,700 people (this figure does not include patients seen in hospital) and the problems dealt with cover an ever widening field. How to balance the weekly budget, how to rehabilitate after long illness, and of course, the question of being granted the tenancy of a corporation house or flat, are among the more simple of the problems with which they are confronted.

The knowledge they have of national and local services and of voluntary organisations, together with the happy relationships existing between them and other officers, enables them to ensure for the patient the maximum assistance. This so lightens the patients' burdens that they are able to benefit fully from their treatment.

The service to patients in hospital has been extended. Ham Green Hospital is visited three times each week, and Winsley Sanatorium, Manor Hospital (Bath), Charterhouse Hospital and Snowdon Road Hospital every three weeks. This service is much appreciated by the patients and their relatives, and has greatly helped towards the aim of making "tuberculosis care and after care" a personal service.

Details of the practical help afforded patients during 1954 are shown later in this report".

### **Tuberculosis Visitors**

The tuberculosis visitors are responsible for the home visiting of patients. They report any welfare needs which they find on their visits.

- (1) A primary visit to every new case of tuberculosis.
- (2) Regular re-visits to patients at three or six monthly intervals, and in "special cases" at more frequent intervals of one or two months.
- (3) Visits upon discharge of a patient from hospital.
- (4) Special visits, necessary for various reasons, such as housing, supplies of bedding, etc., follow up of patients who fail to keep appointments to see chest physicians or for X-ray or B.C.G.

The tuberculosis visitors, in addition, cover all Chest Clinic sessions held at the Central Health Clinic and at Southmead Hospital, including B.C.G. vaccination sessions at the Clinic and at schools.

The number of home visits paid by the tuberculosis visitors is shown in the report of the Chief Nursing Officer.

## Rehabilitation

### *Sheltered employment, light or part-time work*

Patients who because of their disablement cannot return to normal employment, but who are fit for sheltered employment, light or part-time work or training, are referred to the Ministry of Labour for registration under the Disabled Persons (Employment) Act, with a view to being placed in work suited to their physical capacity. They may attend a short course at an Industrial Rehabilitation Unit or a longer course of training in a suitable type of work.

No. referred to Ministry of Labour	No. placed in full employment	No. placed in part-time employment	No. sent for training	No. sent to Industrial Rehabilitation Unit
Male 98	52*	2	12§	10
Female 69	31	5	7	9
Total 167	83	7	19	19

\* Including 12 to Special Remploy Factory.

§ Including 2 to Papworth Tuberculosis Colony, Cambridge.

### *Industrial Rehabilitation Unit*

The object of the short course at this Unit at Fishponds is to help in restoring as quickly as possible the employment capacity of those who have been disabled by sickness or accident, and to give them an opportunity to re-adjust themselves to working conditions. The course usually lasts six weeks.

No. accepted by Unit	No. placed in employment or sent for training	No. awaiting training	No. still at Unit	Failed to complete course
Males 10	6	—	2	2
Females 9	5	2	2	—
Total 19	11	2	4	2

### *Special Remploy Factory*

A special Remploy Factory operates at Southmead providing sheltered employment for disabled tuberculous persons only. This factory is engaged in cabinet making and during 1954, found work for a daily average of 49 men and 5 women.

The patients employed have been specially recommended by the chest physicians as suitable for this type of work, and are under medical supervision whilst so employed.

The factory is a light airy building, equipped with modern wood working machinery.

### *Papworth Village Settlement, Cambridge*

Of the two patients sent to Papworth in 1953 for training and with a view to ultimate colonisation, one is still at the Settlement and



the other unfortunately had to have further treatment and is now in Hospital in Bristol.

The cost of maintenance at Papworth is borne by the Local Health Authority.

*Consultation with Chest Physicians, the Resettlement Officers of the Ministry of Labour and Welfare Officers*

Regular meetings are held at the Central Health Clinic of chest physicians, resettlement officers of the Ministry of Labour, and tuberculosis welfare officers, at which selected patients are invited to attend. It is found that these informal meetings held in a friendly atmosphere, with the patient's chest physician present, help considerably in resolving the patient's difficulties and giving him a measure of confidence in the future which is sometimes lacking.

### **Bristol Tuberculosis Voluntary Care Committee**

This voluntary organisation assists the Local Health Authority in the discharge of their responsibilities under Section 28 of the National Health Service Act for the prevention, care and after-care of the tuberculous, and their work is approved by the Ministry of Health.

The Committee consists of representatives of the Health and Welfare Services Committees of the Local Authority and various local voluntary bodies. The Ministries of Labour, National Insurance and Pensions, and the National Assistance Board, are also represented on the Committee.

A summary of the Committee's work, which is carried out in close co-operation with the Department of Public Health, the chest physicians, and the nursing and welfare staff at the Clinic, is given below:—

*Grants made during 1954*

Grants of clothing .. .. .	312
„ „ footwear .. .. .	125
„ „ bedstead/bedding .. .. .	70
„ „ furniture .. .. .	4
Loan of nursing equipment .. .. .	35

*Cash Grants*

Travelling expenses .. .. .	13
Payment of debts (coal, gas, electric, etc.) .. .. .	10
Payment of rent/rates .. .. .	5
Removal expenses .. .. .	6
Holidays for patients/dependants .. .. .	8
Payment for glasses .. .. .	3
Sundry grants .. .. .	24
	<hr/>
	615
	<hr/>

### **Occupational Therapy**

Classes of occupational therapy are held at Whitefield's Tabernacle, Penn Street, for patients who have received treatment but who are not yet fit to return to work. Three sessions are held each week, in charge of a full time occupational therapist with a part-time assistant, and an average of 13 patients attend each session. The handicrafts taught include leatherwork, rug making, lamp shade making, embroidery, wicker work and light carpentry.



Patients unfit to attend the classes are visited at home, provided with materials and given instruction in suitable handicrafts. During 1954, 470 home visits were made.

The premises at Penn Street are due to be demolished in the near future and the Committee is now looking for suitable alternative accommodation within easy reach of the centre of the City.

### **Employment of Tuberculous Persons**

The Committee have established kiosks at Ham Green, Southmead, Snowdon Road, Frenchay and Winsley Hospitals for the sale of tobacco, confectionery, stationery and sundry goods to patients, staff and visitors. These kiosks provide suitable employment for 12 ex-patients and the profits from this undertaking are used for the Committee's other activities on behalf of tuberculous persons.

### **Social Activities**

A social club for patients and friends was started in 1952 in conjunction with the occupational therapy classes and has a membership of 40. The club meets one evening per week at the occupational therapy room at Penn Street.

Christmas parties for children of patients are given each year at the Central Health Clinic.

### **Finance**

The Voluntary Care Committee depends for its funds upon annual donations and subscriptions, money raised by the Christmas Greetings Seal Sale, the profits available from the operation of the hospital kiosks, and an annual donation of £1,000 from the Local Health Authority. The extent of the practical assistance given to tuberculous persons, therefore, depends upon the funds at their disposal.

### **General**

The welfare officers and staff work closely with the medical and nursing staff of the Chest Clinics, the officers of the National Assistance Board and Ministries of Labour and Pensions, the hospital almoners, British Red Cross Society, Council of Social Service, and other voluntary bodies, whose ready co-operation in the interests of patients is gratefully acknowledged.

## **(iv) PREVENTION OF BLINDNESS**

The work of the Prevention of Blindness Officer (Miss Wallis, health visitor) continues to increase. The number on her welfare register has risen to 424, an increase of 74 on last year's number. More cases are being referred by the visitors of the National Assistance Board, who find a number of old people suffering severe handicap with their poor sight, but who have never attempted to obtain treatment. There is also close co-operation with the old people's welfare health visitors.

The number of first visits paid is 99, an increase on last year, while the number of repeat visits is 160. Cases needing transport with the welfare officer's personal supervision are 178, less than in 1953.

The follow-up of all glaucoma cases attending the Eye Hospital has now been established due to the compiling of a glaucoma register. That is to say, any patients who miss their appointment and fail to

attend after being written to are visited and the necessity for keeping under medical supervision explained. The welfare officer endeavours to smooth out any special difficulties which arise. So often patients complain that they are unable to take the necessary time off from work; this can usually be arranged by means of adjusting the time of the appointment, or contacting the employer.

There are between two and three hundred names on the glaucoma register, and it does seem that this will be a great step forward in the prevention of blindness due to this cause.

This year the total number of blind registrations due primarily to cataracts is 31 and of partially-sighted, 9. It will be seen, on reference to the table, that of these only 9 blind and 6 partially-sighted were recommended for either surgical or optical treatment. This is because the remainder were between 70 and 95 years of age and unsuitable for operation on account of their general physical condition. The six partially-sighted persons referred for treatment all obtained it except one who died.

The number of persons attending the blind registration clinic was 125, and the number of homes visited for this purpose was 21.

### Follow-up of Registered Blind and Partially-Sighted Persons for the Year 1954

(1) No. of cases registered during the year, in respect of which para. 7 (c) of Form BD8 recommends :—			Cause of Disability					
	Cataract		Glaucoma		Retrolental Fibroplasia		Others	
	Blind	P/S	Blind	P/S	Blind	P/S	Blind	P/S
(a) No treatment ..	22	3	6		2		49	5
(b) Treatment (medical, surgical or optical) .. ..	9	6	7	5		1	18	7
(c) Total cases registered .. ..	31	9	13	5	2	1	67	12
(2) No. of cases at (1) (b) above which on follow-up action have received treatment ..	4	6	7	4		1	12	4
(3) No. of cases who have refused treatment	3		2	1			2	1
(4) Records not available.	2						4	2

### Ophthalmia Neonatorum

No. of cases Registered Blind	Age
1	52

(v) **VENEREAL DISEASE**

Miss G. Stinchcombe and Mr. V. I. Deller  
(*Welfare Officers*)

The social workers in the Venereal Diseases Department have, during the past year, continued their activities in contact tracing, default control and rehabilitation.

It has been a year marked by continued contact with known suspected sources of infection and of persuading them to keep regularly in touch with the clinics. This has inevitably resulted in slightly decreased numbers, but the tact, diplomacy and perseverance involved makes considerable demands on time and energy.

Default control has been successfully maintained with a full degree of confidence between both patient and social worker.

Rehabilitation has provided a wide field of activity with encouraging success in dealing with matrimonial problems ; this being only one facet in a huge social problem.

The following figures indicate the statistical result of the year's work :—

	<i>Male</i>	<i>Female</i>
Total number of registrations during 1954 ..	1,362	390
New cases persuaded by the social workers to attend clinic for medical examinations in view of possible risk of infection .. .. .	83	88
New cases who attended through other agencies..	1,279	302
Number of cases on social workers' register from 1st January to 31st December, 1954 ..	502	374
Social workers attendances at clinic .. ..	378	393
Number of new cases interviewed in the clinic ..	498	216
Current case interviews .. .. .	512	717
In-patient interviews .. .. .	336	314
Contact tracing visits .. .. .	137	167
Visits to defaulters .. .. .	420	412
Consultations with voluntary bodies .. ..	290	431
Total number of visits including those for other purposes .. .. .	930	1,130
<b>Default Control</b>	<i>Male</i>	<i>Female</i>
Number of patients first registered in 1954 defaulting .. .. .	41	39
Number of other patients defaulting ..	124	152
	165	191
Number of actual defaults involved ..	269	239
Number of patients who returned for treatment .. .. .	142	167
Number of patients who did not return ..	23	24

**Disposal of Balance**

Transferred to other clinics outside Bristol		
Area .. .. .	12	8
Stated to be attending own doctor ..	—	2
Refused to attend .. .. .	1	5
No Trace: (a) False name and address ..	4	—
(b) Gone to unknown address ..	2	2
Carried forward to 1955 .. .. .	2	7
Returned to country of origin .. ..	2	—
	—	—
	23	24
	—	—

**7. HEALTH AND TUTORIAL EDUCATION****(i) HEALTH EDUCATION**

D. M. Evans

*(Personal Assistant to the Medical Officer of Health)*

At the completion of almost five years as an educationist employed in the sphere of public health I give the following simple assessment of this work as far as it was related to health education.

To prevent disease and to promote health one must accept educational methods and media as vital weapons, for through them, the findings of social and preventive medicine can be made comprehensible to even the least intelligent sections of the population.

In this country it is not generally realised that health education can be used to prevent many health and social problems from arising—or at least from becoming so complex. Medico-social investigations are frequently used to illuminate problems, but it is necessary to incorporate their findings in the programme of health education. I have in mind such problems as the prevention of home accidents; public ignorance regarding the spread and prevention of infectious disease (tuberculosis and intestinal diseases, such as food infections); fear as an enemy to early detection of cancer (reluctance to come forward); sub-normal health arising from faulty diet and health habits and so on. Public knowledge in these matters is small and the economic loss consequent on such ignorance involves local and central authorities in considerable expenditure on health and welfare services. Many local health authorities confuse "health education" with "propaganda" but fortunately this is not so in Bristol.

**Ends and Means**

The ultimate choice between health objectives (*ends*) which are many and divergent, rests with the Health Committee advised by the Medical Officer of Health. It is they who must establish priorities and exercise choice as between ends.

In the field every Medical Officer of Health is faced with the use of scarce factors (the *means*) to achieve the agreed ends. Thus it is desirable that the time of skilled technical officers (health educators) should be used to the best advantage.

Field workers in a public health department, must be versatile resilient and adaptable, but there is a limit to what they can do. For



example, health visitors with responsibilities at ante-natal, post-natal, infant welfare, school health and specialist clinics are frequently called upon to produce special reports on complex social problems (problem families, geriatrics, delinquency, child neglect) and surveys demand their intelligent participation and home visiting on a wide scale. Yet it is frequently asserted that the health visitor is primarily a health educator! In view of all these duties it is difficult to believe that this assertion can be true!

### Individual or Group Education ?

It is, of course, true to say that a great deal of *individual* and even family health education work has always been done and continues to be done effectively by health visitors. Could more be done?

I must confess that when I first viewed the problem (1949) I thought this impossible. Health visitors appeared to be fully occupied and convinced that individual health education, which was being done, was the only possible method. Besides, they were not trained teachers to be expected to teach groups of people. To some health visitors group teaching will always arouse embarrassment.

My own assessment of the situation—not only as far as it applied to health visitors, but also to other technical officers, was that group teaching could be the most economical and effective way of carrying out the instructions of the Medical Officer of Health that health education must be extended and co-ordinated. By participating in the health visitors' training course and in a number of other refresher and training courses I was able to lay stress on and give practical demonstration of the methods, media and routes for making group health education successful on a broader and sounder basis.

### Visual Aids

Visual aids are of great importance in nearly all forms of teaching. The propaganda methods used in the world of commerce to gain the interest of individuals and groups in all walks of society, cannot be ignored by health educators. The latter must also compete for the interest of the public and try to overcome the evils of apathy and ignorance in regard to health.

To this end a library of film strips was built up on a wide variety of health and social topics which could be used to assist the technical officer in making his or her message more effective to an adult population accustomed to learning through visual material. By 1954, midwives, health visitors, sanitary inspectors, and doctors had accepted film strips for teaching purposes and now there is a film strip projector at each of the nine main centres in the City. The film projector was used on about 150 separate occasions during 1954—at clinics, schools, parent-teacher associations, for special groups of students, food traders and so on. During 1954 group teaching at ante-natal clinics was greatly extended by the use of suitable film strips which were readily available to midwives and health visitors. A great number of illustrated talks were also given at infant welfare clinics to "captive audiences" (i.e., those who primarily attend for another purpose, e.g., medical examination of the child or advice for the child's mother). Subjects such as home accidents, vaccination and immunisation have been well received. Movie-films are also being widely used and mobile "flannelgraph" boards are proving very useful for group teaching purposes.

All these methods are widely used by other sections of the Department, notably in the Chief Sanitary Inspector's and Civil Defence sections.

### **Professional and Technical Officers' Refresher Courses and Training**

During 1954 many members of the professional and technical staff attended refresher courses organised jointly with the University. The Central Council for Health Education gave much help in planning and assisting in courses for head teachers, lecturers in health education in training colleges, mental health officers and sanitary inspectors. A joint course with Glamorgan County Council's health visitors at Redland Training College proved most successful.

It is difficult to overestimate the advantages, from a training and teaching point of view, which accrue from the fact that the Medical Officer of Health is also the Professor of Preventive Medicine in the University of Bristol.

### **Conclusion**

My own reflections on this period are summed up by the fact that group health education has become accepted as a routine departmental activity and the scale of these activities is extending. Officers now have access to teaching aids which make their tasks easier and their teaching more effective. I feel that the emphasis has now shifted from "propaganda" to "health education" which will be of lasting value. Not, of course, that propaganda is unimportant especially in furthering *ad hoc* campaigns, but even here its scale cannot hope to compete with that of commercial displays which battle for the public attention. The results of health education cannot be measured in statistical terms or even by concrete examples. Its real rewards rest in the behaviour, habits and knowledge of men, women and children. In this respect I feel we are making a just contribution.

## **(ii) TEACHING AND TRAINING**

Miss W. J. Gibb  
(*Sister Tutor*)

### **Student Health Visitors**

Thirty enquiries were received by the University for training—26 application forms were returned. Twenty-five students were interviewed, 23 selected—of these eight were assisted by Bristol, eight Somerset C.C., two Devon C.C., two Exeter City, one Plymouth and three unassisted (one a West African).

The University held a second interview for three late applicants so as to fill the vacancy—but only one student attended and was accepted. Later a student sponsored by Exeter withdrew owing to a vacancy occurring near her home.

Twenty-three students completed the course in March and presented themselves at the examination for health visitors: ten sat in Newcastle, two failed. Thirteen sat in London, five failed. All the unsuccessful students passed later.

There are 19 students at present in training.

The number of applications for training has fallen throughout the country. The reasons vary from finances to conditions of service. The real reason may be in the lack of official propaganda in the work of a health visitor showing its expansion and vision of the future.

Since 1939, 253 students have passed through the Training School and only three failed completely, i.e. refused to re-sit.

Bristol Students	..	..	154—25 failures—22 qualified later.
Gloucestershire Students	..	24—4	„ all qualified.
Somerset C.C.	„	..	31—6 „ „ „
Unassisted	„	..	27—9 „ „ „

### Individual Local Authority Students

Sixteen, and two Malaysians—(sponsored by the World Health Organisation.) 100% pass.

These included the following :—

Devon C.C. 2, Exeter 1, Plymouth 2, Berkshire 1, Preston 1, Durham 2, Gloucester City 1, Derby 1, Worcestershire 2, Bath 1, Warwickshire 1, Ministry of Health 1.

### Nursery Nurses

The Assistant Tutor reports another successful year. Forty L.E.A. students presented themselves for the examinations of the N.N.E.B. held during the year and 39 were successful.

Twelve entered from the residential nurseries i.e. Downend, Nazareth House and Holmwood and 10 passed. Four special Infant Care Certificates were awarded to the four students who entered from Downend and three were awarded to the three students from Nazareth House ; these special certificates entail much work and study of a baby for three months under the age of six months. Each student writes a full report for the examiner, of her day to day care of the baby in the nursery. To overcome the difficulty in the practical training in day nurseries with infants under 6 months of age, the students spend at least one day per week in the infant clinics—students intending to take further training in hospital or who wish to work in residential nurseries or in private homes are given the opportunity of spending one term in a residential nursery.

The whole of the training for nursery nurses has been reviewed and changes will take effect in 1955.

The Assistant Tutor, Miss E. Thorne, resigned in September to take a post in Bath as Tutor in charge of the training of nursery nurses and a pre-nursing class.

Miss J. O. Sangster, who is a qualified Health Visitor Tutor, was appointed to fill the vacancy.

### Health Education

Talks and demonstrations in infant clinics by voluntary organisations are still playing a part in this work. Speakers from the Marriage Guidance Council, Diocesan Association for Moral Welfare and Mothers' Union have assisted but the number of talks have been reduced considerably as the health visitors are taking more part in teaching.

The "Make and Mend" classes arranged by the Education Department are fully appreciated. The teachers are excellent and results are



showing in the work attempted by mothers who " never used a needle ". These classes need to be extended.

### Talks to Clubs and Guilds, etc.

Some 1,150 persons were contacted by the Sister Tutors during the year. Health visitors assist when possible.

The teaching of public health to nurses in hospital continues. The following hospitals requested lectures :—

Frenchay	..	3 groups given i.e. 6 lectures.
Southmead	..	1 lecture.
Snowdon Road	..	1 lecture.

These lectures are followed by visits to clinics. The nurses from the Hospital for Sick Children visit the Central Health Clinic each year and a lecture precedes the visit. This work appears to be increasing as more requests are being received. Should this materialize the Tutors will be fully occupied between the training of student health visitors and teaching nurses in hospital—no time will be available for other duties as at present. The future is full of possibilities.

## 8. THE AMBULANCE SERVICE

R. F. F. Wood

*(Chief Ambulance Officer)*

In reviewing the work of the Ambulance Service for 1954, attention is focused on two features which have been revealed in the compilation of the statistical data which follows later in the report. They are:—

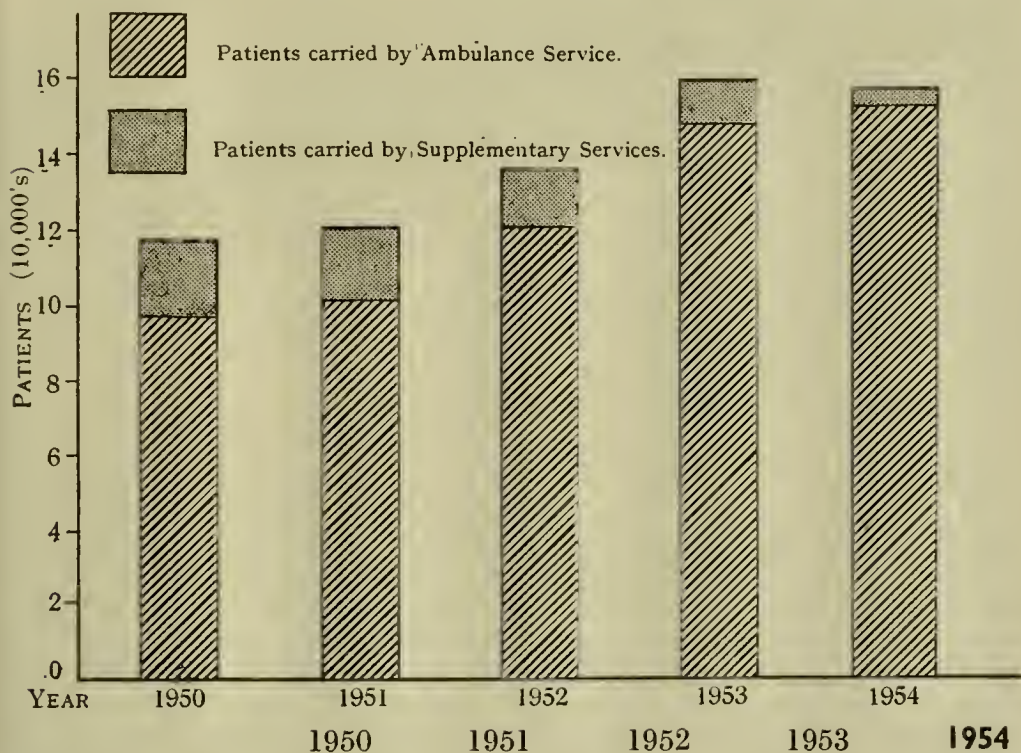
- (i) A decrease for the first time in the last five years, in the number of requests received for ambulance transport.
- (ii) The large reduction in mileage run compared with the previous year.

The decrease in the total number of cases is not large, but it leads one to believe—though not without some misgiving—that the demand for Ambulance Service transport has reached a peak and is now beginning to show signs of stabilising. Attention must, however, be drawn to the fact that despite the reduction in the total number of calls on the service, the Ambulance Service by undertaking a greater proportion of the total requests and decreasing the number of cases passed to the supplementary services, actually carried 4,400 more patients than in the previous year. If this fact is coupled with the saving of 97,980 miles run, it will be readily seen that the main endeavour throughout the period under review has been one of efficiency, economy and co-ordination. Such economies have not, however, been effected without considerable and constant anxiety on the part of all concerned with the day-to-day operation of the service. It is felt that saturation point has now been reached, also, that a continuation of the constant high pressure at which the service is running can only result in a loss of efficiency. It is therefore essential to ensure that during 1955 a balance be effected between the number of cases that the Ambulance Service can carry with efficiency and due regard for economy. In this respect it is anticipated that there will be an increased number of cases passed to the supplementary services for attention during the coming year, thereby relieving to some



extent the pressure on the Ambulance Service, at the same time giving constant, efficient and kindly service to those patients who require Ambulance Service transport.

There has again been a considerable number of patients conveyed by means of the ambulance-rail-ambulance arrangement. Although the necessary arrangements for these journeys, such as the reservation of a railway compartment, the provision of escorts, bedding, tickets etc., and the request to the receiving Authority to supply transport at the destination station, take up a considerable amount of time of the headquarters staff, the net result is a saving to this Authority not only from a financial angle, but in mileage run, thereby enabling vehicles and personnel to be retained for duties within the City area.



Year	1950	1951	1952	1953	1954
Patients carried by Ambulance Service ..	90,476	98,790	114,554	143,590	147,990
By Supplementary Services ..	20,054	18,980	18,888	11,598	1,289
Totals ..	110,530	117,770	133,442	155,188	149,279

### Mileage

Year	Ambulance Service	Hospital Car Service	Taxi-Association	Totals
1954	804,662	9,534	1,839	816,035
1953	813,353	79,772	20,890	915,015
Difference	—8,691	—70,238	—19,051	—97,980

**Classification of Cases carried by the Ambulance Service**

Year	Accident and sudden illness	Maternity	Inf. diseases	General cases	Totals
1954	6,835	3,708	1,185	136,262	147,990
1953	7,116	3,851	1,829	130,794	143,590
Difference	—281	—143	—644	+5,468	+4,400

**Miles per Patient**

1954	..	..	5.47
1953	..	..	5.89

**Calls on the Ambulance Service**

During the year a series of meetings between representatives of the Regional Hospital Board, the Hospital Management Committees, the Board of Governors of the Teaching Hospitals and members of the Council were arranged to consider ways of reducing calls upon the Service. The meetings proved to be both interesting and constructive and it is hoped that with the fuller knowledge and appreciation of all the difficulties involved, both from the hospital and ambulance service point of view, there will be a more realistic approach to the problem of requests for transport.

**Co-operation with Adjoining Authorities**

It is pleasing to report that as a result of the excellent relations which have been established with the adjoining Authorities of Somerset and Gloucester, a very large number of cases requiring transport to places outside the Bristol area have been conveyed by ambulances and cars, returning to their own areas after having brought patients into the City hospitals for treatment or admission. The journey arrangements for these cases take up a considerable amount of time each day on the part of the headquarters staff, but the saving in mileage and vehicle availability is invaluable. Throughout the year many long distance journeys have been saved by giving "paying" Authorities, under Section 24 of the National Health Service Act 1946, the option of fetching their own cases should they so desire. Again this involves extra work on the part of headquarters staff but it does result in considerable saving in mileage run and the avoidance of additional accountancy.

**Supplementary Services**

Although there has been a large reduction in the number of cases passed to the Hospital Car Service and the Taxi Association, good relationships have still been maintained and there is always willingness on the part of both services to carry out cases on behalf of this Authority should the need arise.

**Major Accidents**

In accordance with Ministry of Health Circular 13/54, arrangements have been made for the necessary liaison to be established between police, fire brigade, hospitals, adjoining authorities and the Ambulance Service, should there be a major accident within the City boundary

or in the near areas of the adjoining counties. This has been effected through discussions with the Regional Hospital Board and all interested parties, and provision has also been made for the call out and conveyance of a mobile first-aid unit. Reserve stocks of blankets, stretchers and dressings have been purchased and are held by the Ambulance Service for use in an emergency. Assistance will be rendered to adjoining counties should the need arise and any co-ordination of arrangements for the reception of casualties etc., will be carried out by the Bristol Ambulance Control Room staff. It is felt that this arrangement will simplify matters if casualties were being sent to Bristol hospitals for care and attention.

### **Vehicles**

During the year six new vehicles were purchased. These comprised three ambulances and three utilicars or sitting-case vehicles. The equivalent number of old vehicles were disposed of to the Civil Defence Committee for use in the training of volunteers in the Ambulance Section of the Civil Defence Corps. The vehicle fleet was thus maintained at the agreed level of 43 vehicles in all, made up of 28 ambulances and 15 utilicars.

### **Premises**

No major work was carried out at any of the existing ambulance stations during the year. Negotiations were however commenced respecting the provision and acquisition of a suitable site for a central ambulance station which is included in the capital building programme of the Committee for 1956-57.

### **Ambulance Competitions**

Entry of a team representing the Bristol Services was made in a regional competition for ambulance services in the West Region, which was held at Plymouth in October. Teams from Somerset, Dorset and Cornwall County Councils, Bath, Plymouth and Gloucester County Boroughs were also entered and the winner was Somerset County Council with 80.75 points, Bristol being placed third with 73.5 points.

Great keenness was shown throughout the competition and the standard of first-aid, equipment and general appearance of the teams was very high. It is hoped to improve the position of the Bristol Service should a similar event be held in 1955.

### **Safe Driving Competition**

All drivers in the Service were entered for the National Safe Driving Competition organised under the auspices of the Royal Society for the Prevention of Accidents. Of the 90 drivers entered 67 qualified for an award compared with 66 for the previous year.

### **Civil Defence**

During the year the training of volunteers in the ambulance section of the City's Division of the Civil Defence Corps was continued and expanded. Details of the training are included in the Civil Defence Section of this Report. The training of the operative staff of the full-time service in their war-time duties was continued throughout the year and 80 per cent. of the personnel have now completed their basic instruction.





# I. SANITARY CIRCUMSTANCES, HOUSING AND INSPECTION OF FOOD

F. J. Redstone  
(*Chief Sanitary Inspector*)

<i>Deputy Chief Sanitary Inspector</i>	...	C. J. Creech
<i>Senior Housing Inspector</i>	...	C. E. Bowden
<i>Senior Food Inspector</i>	...	P. Hayter
<i>Senior Port Health Inspector</i>	...	E. I. Davies

## (i) SANITARY CIRCUMSTANCES

In recent years increasing demands have been made on the environmental health services under the control of the Chief Sanitary Inspector. The intensified activity in various branches of the work is due to the constant flow of new legislation and to the growing interest of the general public in matters of public health.

This improved climate of opinion is most helpful to the Health Committee and its officers, but unfortunately it coincides with a shortage of staff necessary to carry out the detailed and highly technical activities demanded in connection with the inspection and repair of houses, food hygiene, meat inspection and many other services, not least of which is the work performed by the Port Health Inspectors.

Staff shortage is at the moment a national problem, but as it was realised that a large centre of population like Bristol must acquire its fair share of available manpower and do its utmost to train new entrants, it is indeed pleasing to record that a re-organisation scheme received approval as the year closed.

This scheme anticipates greatly accelerated action in dealing with clearance areas and the resumption of full repair procedure on individual houses to prevent those which could be saved from falling into the demolition class.

It will be seen in other pages of my report that the Bristol Health Committee continued and extended their wide interest in all matters affecting the environment of the people and on many occasions, supported by the Medical Officer of Health, particular attention was focused on the importance of clean food, clean air and good housing conditions.

## Examination Successes During the Year by Officers of the Section

The following further qualifications were obtained by officers of the section during the year :—

*Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board:* M. G. Tomkins ; P. McCandlish.

*Royal Sanitary Institute: Certificate for Inspector of Meat and Other Foods:* M. G. Tomkins ; L. J. Roberts.

*National Certificate in Building (Third Year):* G. A. Manners.

## Acknowledgment

The Chief Sanitary Inspector takes this opportunity to express thanks to all those who have made notes as to special points of progress during the year, and have contributed material in the preparation of this report.

## Repairs to Property in Owners' Default

At the beginning of the year under review 12 outstanding cases were being dealt with by the section.

During 1954, 50 cases were referred to the defaults section for consideration, making a total of 62 properties which were dealt with as shown below :—

- 34 properties were repaired by the Corporation's contractors.
- 5 properties were repaired by their respective owners after the cases had been referred to the defaults section.
- 1 case was not proceeded with for various reasons.

At the end of 1954, 22 cases were still outstanding, disposed of as follows :—

- 15 properties were being repaired by the Corporation's contractors;
- 7 cases awaiting Committee approval.

During the year 38 orders were issued to various Corporation's contractors and accounts to the order of £1,319 0s. 9d. were passed for payment.

The year saw the largest number of cases referred for consideration since 1949.

## Works by Agreement under Section 275 of the Public Health Act, 1936

At the end of 1953 one case of " works by agreement " was still in the hands of the defaults section.

During 1954, 5 cases were referred to the section for consideration making a total of 6 cases which were dealt with as follows :—

- 5 properties were repaired by the Corporation's contractors ;
- 1 case was withdrawn after discussion with the owner.

Accounts for work by agreement paid amount to £366 0s. 9d.

## General Remarks

The amount of work carried out by the defaults section in the past year represents a 25 per cent increase on the previous year. It would appear that the increasing cost of repairs, coupled with an accelerating housing repair programme must inevitably lead to a steady increase in this aspect of the work.

The number of cases dealt with under Section 275 has decreased compared with last year. Whilst the number of applications has been approximately the same, it has been necessary to inform some of the applicants that their cases were not suitable for this procedure. It is the policy of the Health Committee to accept work by agreement only in cases of financial hardship, otherwise the Corporation would become a contractor for private owners. Each application is, therefore, given careful consideration before it is accepted for such action.

## Sanitation, Housing, Shops Acts, Etc.—Sanitary Inspection

1953				1954		
Visits	Re-visits	Total		Visits	Re-visits	Total
		3,338	Complaints ... ..			4,261
4,077	17,015	21,092	Visits:—	5,341	20,895	26,336
—	4	4	Dwelling houses ... ..	1	1	2
5	4	9	Houses let in lodgings ... ..	4	5	9
110	218	328	Common lodging houses ... ..	217	257	474
732	1,375	2,107	Food shops—Registerable ... ..	825	1,764	2,589
223	549	772	Not registerable ... ..	326	564	890
55	107	162	Other shops ... ..	40	109	149
58	129	177	Bakehouses ... ..	67	185	252
39	68	107	Workplaces and offices ... ..	60	63	123
239	430	669	Factories—Non-mechanical ... ..	336	599	935
28	23	51	Mechanical ... ..	38	39	77
23	26	49	Outworkers ... ..	19	79	98
39	369	408	Removal of aged persons ... ..	64	410	474
16	59	75	Smoke observations ... ..	15	54	69
34	145	179	Offensive trades ... ..	36	151	187
31	140	171	Entertainment places ... ..	36	353	389
53	136	189	Tents, vans and sheds ... ..	71	144	215
405	272	677	Keeping of animals ... ..	449	280	729
869	1,513	2,382	Food inspection ... ..	543	899	1,442
36	78	114	All other matters ... ..	265	562	827
4	6	10	Sites ... ..	54	155	209
			Institutions, hospitals, etc. ... ..			

1953					1954			
In- tima- tion	Statu- tory	Compliance			In- tima- tion	Statu- tory	Compliance	
		I	S.				I.	S.
539	538	529	449	<i>Notices:—</i>				
—	—	—	—	Dwelling houses (P.H.) ...	804	661	620	364
—	—	—	—	Houses let in lodgings ...	—	—	—	—
1	—	1	—	Common lodging houses ...	—	—	—	—
68	1	53	1	Foodshops—Registerable ...	7	1	2	1
33	—	38	—	Non-registerable ...	104	—	107	6
—	—	2	—	Other shops ...	33	2	32	1
—	—	3	—	Bakehouses ...	2	—	—	—
—	—	—	—	Workplaces and offices ...	—	3	—	—
35	—	29	—	Factories—Non-mechanical ...	3	—	—	—
—	—	—	—	Mechanical ...	23	1	21	1
—	—	—	—	Outworkers ...	—	—	—	—
—	—	—	—	Removal of aged persons ...	—	—	—	—
—	1	—	1	Smoke observations ...	—	6	—	—
1	—	—	—	Offensive trades ...	—	—	—	—
—	—	—	—	Entertainment places ...	2	—	2	—
1	—	1	—	Tents, vans and sheds ...	—	—	—	—
2	—	1	—	Keeping of animals ...	—	—	—	—
2	—	2	—	All other matters ...	—	—	—	—





## (ii) HOUSING

### **The Housing Repairs and Rents Act, 1954**

The Housing Repairs and Rents Act 1954 came into operation on the 30th August, 1954 and as anticipated, it has already added substantially to the responsibilities of the department.

Generally, the object of Part 1 of the Act is to renew the attack upon the seriously unfit house by extending the existing powers of slum clearance to include the compulsory purchase of houses, with a view to their maintenance at a standard suitable for the time being until demolition is possible. It is appreciated that to give full effect to the objective of this new power, that is, to make conditions in the home more tolerable for the time being, a maximum effort is necessary in the minimum of time and this involves most of the Corporation departments at some stage. Consideration of the following problems have taken place both at committee and officer level.

1. The number of houses which can be allocated annually to rehouse families displaced.
2. The number of houses which the Corporation could reasonably be expected to acquire annually for "last aid repair."
3. The staff necessary to carry out :—
  - (a) surveys, inspections, map preparation, documentation and representation.
  - (b) Preparation of schedules of work and the labour force necessary to execute this work.

The effect of Part 2 of the Act which deals with increases in rent and the issue of certificates of disrepair was more immediate as far as the Local Authority was concerned. At the close of the year 52 applications had been received and certificates issued in each case. Whilst four months is too short a time to review the position, it is possible to list some first impressions and experiences.

1. The number of applications for certificates of disrepair was not as great as expected.
2. Applications for certificates were mainly in respect of medium and good class property, including flats.
3. House agents generally are advising their clients against the demand for increased rents in the case of poor class property.
4. Many of the statutory forms served by the landlord upon the tenant have been incorrectly filled in.
5. The forms issued with explanatory notes must be made as clear as possible for the position to be understood by both tenants and owners of property.

**Housing Acts**

1953		1954
	<i>Inspections:—</i>	
—	Section 9 ... ..	—
94	Section 11 and 12 ... ..	104
33	Clearance Area ... ..	112
	<i>Represented to Committee:—</i>	
—	Section 9 ... ..	—
94	Sections 11 and 12 ... ..	104
33	*Clearance Area ... ..	112
	<i>Orders made:—</i>	
57	Section 11 (demolitions) ... ..	34
16	Section 12 (closing orders) ... ..	12
2	Section 11 (undertakings to repair accepted) ... ..	2
6	Section 11 (undertakings not to use accepted) ... ..	4
7	Section 10 (Local Government (Misc. Provisions) Act, 1953—Closing Orders Whole House) ... ..	21
—	Closing Orders revoked and Demolition Orders made (Section 10 Local Government (Misc. Prov.) Act 1953)	1
2	Demolition Orders revoked and Closing Orders substituted —Section 11 Local Government (Miscellaneous Provisions) Act, 1953 ... ..	1
	<i>Houses Repaired:—</i>	
—	Section 9—Informal ... ..	—
—	Section 9—Formal ... ..	—
—	Section 9—Formal by Corporation in default ... ..	—
7	Undertakings to repair ... ..	2
4	Undertakings not to use cancelled after repair ... ..	2
2	Other repairs ... ..	6
2	Closing Orders determined after repair ... ..	2
10	Rent Certificates issued ... ..	3
—	Certificates of Disrepair ... ..	39

**Section 15—Appeals against Demolition Orders, etc.**

There were no appeals against demolition orders during the year under review, but one appeal was entered against a Closing Order made under Section 10 of the Local Government (Miscellaneous Provisions) Act, 1953. This was adjourned *sine die*.

**\*Clearance Areas**

Four clearance areas, comprising 50 houses, were confirmed by the Minister of Housing and Local Government during 1954.

**Slum Clearance**

During the war and up to 1953 housing action was in the main confined to individual houses under Section 11 of the Housing Act, 1936, with the result that a large number of houses subject to demolition order would be found in the midst of houses which were equally unfit. It was considered wise, therefore, that the first steps in the renewal of the slum clearance programme should be directed in the main, to such groups of houses, and 23 clearance areas were represented during the year. Two appeals were lodged, but neither reached the enquiry stage.

It is hoped to continue this process and thus gradually re-create the administrative organisation which ceased to exist with the outbreak of the

war in 1939. Indeed in spite of staff shortage and acute difficulties in connection with office accommodation, preliminary field-work on a large clearance area was put in hand and is well advanced.

It is generally considered proper that the worst groups of houses should be dealt with first, but the importance of sites capable of housing redevelopment must be kept in mind when deciding priorities. Industrial interests, too, must find a place in a balanced programme of slum clearance. This is particularly true of Bristol where a very high percentage of unfit properties exist near industrial concerns and it will be seen that many problems associated with residential and industrial re-development have to be considered, apart from the unfitness of houses.

### **Improvement Grants**

During the year there was a great increase in the number of enquiries made requesting Improvement Grants, particularly after August when the Housing Repairs and Rents Act, 1954 amended certain provisions of the Housing Act 1949. To Sanitary Inspectors, the most important amendment was the repeal of the "thirty-year life" condition. In its place we find reference to a "fifteen-year life" with the proviso that the Minister or Local Authority may approve proposals if satisfied "that it is expedient in all the circumstances that the proposal or application should be approved."

When it is realised that Local Authorities are planning slum clearance programmes for 10-15 years, it can be appreciated that a decision to make a grant or not can often be a critical one. In practice it is seen that the condition of the house for which a grant is sought is often of less importance than the condition of houses surrounding it. It can be said that the acceptance of the fifteen-year term of life has resulted in a definite lowering of the standard of houses for which applications for grants have been made.

### **Moveable Dwellings**

The establishment and use of moveable dwellings in various parts of the City again received close attention and every effort was made to prevent unsatisfactory conditions arising in connection with gypsy and similar encampments.

Firm action in this respect is essential in every large centre of population and at all times it was indicated that use of land without attention to public health requirements would lead to action being taken against such occupiers.

At the same time every consideration is given to the claims of key workers in the building industry, and mainly in respect of such occupation, the Health Committee granted licences for the siting and use of ten caravans within the City area during the year and of this number, six were grouped for a limited period on one building site and provided with concrete standings, main drainage, adequate water supply and arrangements for refuse disposal.

One application to use a caravan for human habitation was refused by the Health Committee for public health reasons.



### (iii) INSPECTION OF MEAT AND OTHER FOODS

#### Slaughtering Facilities

The de-control of meat supplies which took place during the middle of the year presented many problems and it became the duty of every Local Authority to ensure that sufficient facilities exist to meet the slaughtering demands of its district.

The problems which arose during consideration of this important matter were very complex, particularly in view of the fact that no one was able to state with any degree of certainty what the demands for home-killed meat would be when de-control took place.

The Bristol Health Committee, realising the difficulties involved, appointed a special Abattoir Sub-Committee which held many meetings and quickly dealt with all relevant aspects of this important matter in collaboration with local representatives of the meat trade.

The Chief Sanitary Inspector submitted a comprehensive report on the slaughtering facilities available with estimated requirements for the area to be served.

It was eventually agreed to make the Public Abattoir, Gordon Road, available to all butchers requiring these facilities by arrangement through the Bristol Corporation Slaughtering Contractor, and the Hotwells Lairs were continued in use as a private slaughterhouse by the Mutual Meat Traders Company. Four bacon factories have continued as hitherto.

Four applications were received in connection with the re-opening of private slaughterhouses in the City ; one of these applications was withdrawn and the other three were refused by the Health Committee on public health grounds.

#### Meat Inspection

A total of 166,222 carcasses of meat were inspected at the Gordon Road Abattoir, Hotwells Lairs, bacon factories and various other institutions in the City. This was an increase of 6,310 carcasses over the 1953 figures.

Whole carcasses condemned decreased by 219 and the total amount of meat condemned was nearly 141 tons less than the previous year.

Forty-eight specimens from animals infected with *Cysticercus Bovis* were confirmed in 1954 compared with 77 in 1953.

#### The Public Abattoir, Whitehall

The scheme of improvements at this Abattoir referred to in my last Annual Report was proceeded with at a good pace during the year. The additional lairage accommodation being completed as this report is written will eliminate the unsatisfactory conditions used as lairage in " make-do " sheds and in the undrained paddock adjoining the railway-line. The modern office block and rooms constructed for the use of the meat porters and slaughtermen will remove cause for complaint in the use of temporary buildings installed during and since the war.

These circumstances arose due to the intensified use of the Abattoir under abnormal conditions and the Health Committee has done its utmost at all times to deal adequately with conditions according to circumstances.



Good progress was also made on the work of providing additional cooling facilities and the main structure of quite a large extension was completed during the year. When this building work is finished, the difficulties which have been experienced in the past, due to considerable over-crowding of meat in the cooling hall, will be eliminated.

With the end of meat rationing in July, control over the purchase of food animals was relinquished and butchers were able to purchase animals for slaughter as and when required.

It was decided that the facilities provided at the Abattoir should be placed at the disposal of butchers wishing to buy animals "on the hoof" and have them slaughtered by arrangement with the Corporation's Slaughtering Contractor. Some 50 butchers, including several large wholesalers regularly send livestock for slaughter and this has created considerable administrative work in the identification of both livestock and meat dealt with by these individual owners. This work was made more difficult owing to the lack of adequate lairage facilities, but the position was considerably eased by the co-operation of the Estates Committee in allowing a part of the cattle market to be used temporarily as lairage.

A record number of pigs were slaughtered during the year and the question of installing a pig de-hairing machine to expedite through-put received consideration.

The Public Abattoir became a grading centre in connection with the Government Fatstock Payments Scheme and Ministry of Food Graders are accommodated on the premises for this work.

In view of the many difficulties encountered with the cessation of meat control, it can be said that the arrangements at the Abattoir have operated very smoothly. This is in no small measure due to the excellent team-work encouraged by the Health Committee, between the various Corporation Departments concerned and the numerous trade interests who have expressed satisfaction with the facilities now available.

At the same time it must be said that the meat precinct scheme recommended by the Chief Sanitary Inspector in 1944 and about which a public inquiry was held in 1947 is only in abeyance as it is considered that a meat precinct which would incorporate adequate pasturage, lairage, slaughtering, cooling, refrigeration and distributing facilities, a cattle market, a meat market and sites for bacon and other meat-food factories, would result in the more hygienic handling of meat supplies.

At the time of the public inquiry referred to, the Minister explained that whilst he appreciated the motives which prompted the Council to propose the acquisition of land for a meat precinct, such a project must depend upon the Government's general policy in regard to arrangements for slaughtering and marketing.

Local Authorities are still awaiting Government policy in this connection, but it is anticipated that the proposals for the "moderate concentration" of slaughtering facilities in this country will soon be made known and from that time it is hoped that Bristol will be able to go ahead with a comprehensive scheme on the lines already approved in principle by the Health and Planning Committees.

## Hygiene of Meat Transport

The importance of hygiene in the handling and transport of meat has received special attention in Bristol during recent years. It is therefore pleasing to report that twelve meat vans, designed and constructed in collaboration with the Chief Sanitary Inspector, were brought into use. Figure 1 shows one of these all-metal vans which can be cleansed internally by steam. Particular attention is drawn to the hand-washing facilities provided at the side which consist of a neatly fitted plastic wash basin supplied from an insulated hot-water tank. Soap and towel is provided and the waste water is collected in another tank underneath which can be drained to a suitable gully at the depot.

Each meat van is radio equipped, handling orders received within a 100-mile radius of the depot.

The Medical Officer of Health inspected this fleet of vans as they were ready to take the road and expressed the view that they formed the beginning of a new movement in the better handling of meat supplies and altogether will do much to assist the Clean Food Campaign.

## Inspection of Meat and Other Foods

1953		1954
	<i>Visits:—</i>	
294	Meat markets ... ..	327
7,386	Shops ... ..	7,243
—	Cattle markets and railway sidings ... ..	—
—	Fish curing premises ... ..	—
85	Sausage-making premises ... ..	56
31	Cold stores ... ..	34
6	Street traders ... ..	7
7	Institutions ... ..	7
1,414	Slaughterhouses ... ..	1,475
	<i>Remedial Action:—</i>	
—	Slaughterhouses cleansed ... ..	—
—	Slaughterhouses rebuilt, repaired or altered ... ..	—
—	Sanitary defects, etc. ... ..	—

1953			1954	
City	Abattoir		City	Abattoir
		<i>Animals examined:—</i>		
12,024	13,592	Beasts ... ..	8,996	14,062
159	92	Calves ... ..	1,048	2,091
39,675	37,792	Sheep ... ..	36,154	34,502
2,504	13,681	Pigs ... ..	8,683	23,897
—	—	Pigs (imported) ... ..	—	—
40,390	—	Pigs (bacon) ... ..	36,789	—
—	—	Goats ... ..	—	—
		<i>Carcases destroyed:—</i>		
147	308	Beasts ... ..	128	222
4	4	Calves ... ..	17	12
84	85	Sheep ... ..	57	54
189	346	Pigs ... ..	216	245
—	—	Goats ... ..	—	—



Fig. 1—Hygiene of Meat Transport—Note Handwashing Facilities.





## Foods, Fish and Canned Goods Condemned

		Tons cwt. qrs. lb.					Tons cwt. qrs. lb.			
		FISH					OTHER			
1954	...	10	8	1	16½		26	17	0	14
1953	...	13	7	1	4		33	6	1	4

## Animals Examined

1953					1954			
Hot-wells Lair	Abat-toir	Bacon Factories and City	Total		Hot-wells Lair	Abat-toir	Bacon Factories and City	Total
12,024	13,592	—	25,616	Beasts	8,996	14,062	—	23,058
159	92	—	251	Calves	1,048	2,091	—	3,139
39,675	37,792	—	77,467	Sheep	36,154	34,502	—	70,656
2,507	13,681	40,390	56,578	Pigs	8,683	23,897	36,789	69,369
—	—	—	—	Goats	—	—	—	—
54,365	65,157	40,390	159,912		54,881	74,552	36,789	166,222

## Meat Inspection—Animals Examined

1954									1953							
Hot-wells Lairs		Abat-toir		Bacon Factories and City		Total			Hot-wells Lairs		Abat-toir		Bacon Factories and city		Total	
8,996		14,062		—		23,058		Beasts	12,024		13,592		—		25,616	
1,048		2,091		—		3,139		Calves	159		92		—		251	
36,154		34,502		—		70,656		Sheep	39,675		37,792		—		77,467	
8,683		23,897		36,789		69,369		Pigs	25,037		13,681		40,390		56,578	
—		—		—		—		Goats	—		—		—		—	
54,881		74,552		36,789		166,222			54,365		65,157		40,390		159,912	
								Carcases Destroyed								
TB	Oth.	TB	Oth.	TB	Oth.	TB	Oth.		TB	Oth.	TB	Oth.	TB	Oth.	TB	Oth.
87	41	186	39	—	—	273	80	Beasts	120	27	248	60	—	—	368	87
—	17	4	8	—	—	4	25	Calves	—	4	—	4	—	—	—	8
—	57	—	54	—	—	—	111	Sheep	—	84	—	85	—	—	—	169
16	93	100	145	72	34	188	272	Pigs	12	31	115	236	102	44	229	311
—	—	—	—	—	—	—	—	Goats	—	—	—	—	—	—	—	—
103	208	290	246	72	34	465	488		132	146	363	385	102	44	597	575

### Carcases Inspected and Condemned, 1954

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Goats
Number killed ... ..	23,058	—	3,139	70,656	69,369	—
Number inspected ... ..	23,058	—	3,139	70,656	69,369	—
All diseases EXCEPT tuberculosis :— Whole carcases condemned ... ..	77	—	25	111	273	—
Carcases of which some part or organs were condemned ... ..	13,840	—	31	13,717	1,552	—
Percentage of the number inspected affected with disease other than tuberculosis ... ..	56%	—	0.99%	19.42%	2.23%	—

<i>Tuberculosis only</i> :—						
Whole carcases condemned ... ..	273	—	4	—	188	—
Carcases of which some part or organs were condemned ... ..	4,764	—	2	—	1,937	—
Percentage of the number inspected affected with tuberculosis ... ..	21.8%	—	0.06%	—	2.79%	—

## Inspection of Meat and Other Foods

1953		1954
Tons		Tons
212½	<i>Meat destroyed from:—</i>	
258	Slaughterhouses and shops ... ..	<b>145·8</b>
—	Abattoir ... ..	<b>174·5</b>
50¾	Cold Stores ... ..	—
	Fish, poultry, vegetables, etc. ... ..	<b>37·25</b>

## Percentage of Carcases Destroyed of Animals Examined

	1954		1953	
	T.B. only %	All Carcases (Inc. T.B.) %	T.B. only %	All Carcases (Inc. T.B.) %
Beasts ...	1·18	1·52	1·39	1·77
Calves ...	0·13	0·96	—	3·2
Sheep ...	—	0·16	—	1·04
Pigs ...	0·27	0·66	0·404	0·94

TOTAL WEIGHT OF MEAT CONDEMNED								
--------------------------------	--	--	--	--	--	--	--	--

	1954				1953			
	Tons	Cwt.	Qrs.	Lb.	Tons	Cwt.	Qrs.	Lb.
Hotwells Lairs ...	112	1	1	—	158	5	—	7
Abattoir ... ..	174	10	2	7	256	19	2	8
Bacon factories	24	16	—	22	33	9	1	7
Butchers' shops and City ...	8	19	2	14	12	13	—	13
Total ...	320	7	2	15	461	7	—	7

## (iv) MILK AND FOOD INSPECTION

### New Legislation

The new legislation which became operative during the year affecting the Department was as follows :—

*The Butter Order 1954* and *The Cheese Order 1954* removed price controls and revoked the requirements to mark butter as "national butter." They re-enact the licensing of manufacturers by the Ministry of Food.

*The Food Standards (Margarine) Order 1954* upon decontrol of sales, laid down minimum and maximum Vitamins A and D content per ounce of margarine.

*The Food Standards (Soft Drinks) (Amendment) Order 1954* removed from the need to conform to a standard, all fruit juices, whereas they had been required previously to contain minimum amounts of natural fruit juice.

*The Milk (Special Designations) (Raw Milk) Regulations, 1949/54; The Milk (Special Designations) (Pasteurised and Sterilised Milk) Regulations, 1949/53.* Deferred parts of these Regulations came into operation on the 1st October, 1954 whereby "Accredited" milk ceased to be a "designated" milk and pasteurised milk must be placed in sealed containers at the processing dairy—bottles to have overlapping caps or other covers approved by the licensing authority.

*The Rag Floek and Other Filling Materials Regulations, 1954,* amend the standard of cleanliness of certain materials and appointed approved analysts.

*The Slaughterhouses Act 1954* amends and brings up to date those parts of the *Food and Drugs Act 1938* relating to slaughterhouses.

*The Livestock (Restriction on Slaughtering) (Amendment and Revocation) Order, 1954* revoked the 1947 Order which restricted the slaughter of food animals to persons licensed by the Ministry of Food.

*The Slaughter of Animals (Amendment) Act, 1954* extends the provisions of the *Slaughter of Animals Act 1933* and includes powers to control premises to be used for the slaughter of horses; slaughter by humane methods; the licensing of slaughtermen and the types of instruments used.

## **Food Inspection**

The following were some of the more unusual types of food investigations dealt with :—

### *Synthetic Cream*

As a result of an explosion of a carboy of acid at a transport depot, a drum of this product appeared to have been impregnated and it was submitted for analysis. A stain on the drum proved to be wax in the cardboard and no traces of acid were found.

### *Sugar*

Yellow stains and mouse excreta were complained of in a packet of sugar—one of two purchased at different shops at different times. Both shops were visited by the Rat (Repression) Officer and at one, mice in substantial numbers were found and dealt with.

### *Food Colouring Fluids*

The Public Analyst reported on samples secured from school kitchens that one contained diethylene glycol as a solvent for the colour. Another contained isopropyl alcohol. Both constituents were considered to be undesirable elements. The fluids were withdrawn from stock and enquiries in the localities of manufacture revealed that one was no longer manufactured.

### *Mineral Water*

Following a complaint regarding the flavour of a bottle of mineral water, the Public Analyst reported that there was a peculiar odour around the cap. Investigation at the factory revealed satisfactory bottle washing methods and it was decided that the bottle had been used for the storage of disinfectant.



### *Bread and Cake*

Complaints were made of suspected mouse excreta or other foreign substances in bread or cake, and in a number of them the Public Analyst reported discoloured dough, patches of oil; in one case a piece of burned crust.

Mouse excreta was found in some instances and appropriate action was taken.

### *Chewing Gum*

Although this is not yet regarded as "food" complaints were investigated. In one case the stock at a shop was out of condition and destroyed. In another case, samples were secured from automatic machines and these were found to be of very poor quality and musty. This was reported by letter to the packers who replied that they had asked their customers to withdraw the stocks. It is interesting to note that chewing gum is a "food" within the definition of the new *Food and Drugs Amendment Act 1954* which however is not yet operative.

### *Milk*

A full bottle of milk was submitted by a complainant who drew attention to a dark object therein, which proved to be a snail. Legal proceedings followed.

### *Vinegar*

Following a complaint regarding unsatisfactory vinegar purchased in a shop outside the City, samples were secured from the manufacturer and found to contain rather a heavy infestation of vinegar eels.

The manufacturers were advised to empty and cleanse all barrels with hypochlorite solution; subsequent samples were found to be satisfactory.

### *Potted Paste*

A pot of well-known paste was submitted by a purchaser. It was alleged to contain "mouse excreta." It proved to be a small seed from seasoning used in manufacture.

### *Cream*

Arising from a report from Birmingham that typhoid infection had been found in a tin of Irish cream, extensive enquiries were made of Bristol wholesalers and in only one case (a shopkeeper) was any of the particular brand found to have been stocked. The shopkeeper had seen press references to the matter and returned his stock to London suppliers. Samples of other brands of Irish cream were secured and reported to be satisfactory.

It was revealed later in the year that infected well water had been used as a temporary measure to cool the tins, some of which were improperly sealed, the infected water had probably entered some of the cans.

It was fortunate that upon opening cans they gave off an offensive odour, which prevented extensive consumption.

*Watercress*

This commodity came under suspicion in a case of dysentery. A sample examined in the laboratory was reported to contain "an undue number of presumptive *coli* and faecal *B. coli* were identified." Several further samples were secured with similar reports.

As a result of enquiries, it is now known that a voluntary scheme of the National Farmers' Union, Watercress Branch, exists whereby watercress beds of members are inspected "to ascertain that the watercress is grown under proper commercial conditions; the lay-out of the beds is economic, and that the general standards of cultivation are acceptable." Their products are labelled as "Approved Grower, N.F.U."

A large proportion of watercress, however, is on sale loose and unlabelled. There are no statutory requirements regarding the purity of the water in which any of it is grown.

*Oranges*

A circular from the Ministry of Food in January, 1954, drew attention of Local Authorities to the fact that in certain imported oranges the presence of thiouria had been detected. Its power of penetrating the skin into the juice and its toxicity made the use of this chemical undesirable. It was a breach of the *Preservatives in Food Regulations* to sell such fruit.

A number of samples were submitted to the Public Analyst with negative results but some arriving at Avonmouth Docks were found to be affected.

It appears that oranges from certain countries were dipped in the chemical after harvesting as a precaution against mould, but this practice has now ceased.

*Ice Lollies*

Reports from other parts of the country of the discovery of appreciable amounts of lead chromate and chromium in the wrappers were noted. The lollies were frozen in the wrappers without sticks. The manufacturers withdrew these wrappers when their attention was drawn to the matter.

A considerable number of ice lollies were secured locally and permissible amounts of lead were found in the wrappers.

*Flavoured Milks*

A recent development in the dairy industry is the marketing of bottles of milk flavoured with fruit juices and chocolate; the product being sterilised.

The fat content has been found to vary considerably and it is thought that in some cases skim milk may be used.

The question of whether the manufacture of this product is permissible in a dairy within the terms of the *Milk and Dairies Regulations* was submitted to the Town Clerk for legal advice.

**Legal Proceedings**

Legal proceedings were taken in the following cases during the year :—

<i>Adulterated milk (added water)</i>	...	Fine £10 and £1 1s. costs.
<i>Adulterated milk (added water)</i>	...	Fine £3 3s. and £2 2s. costs.

Non-brewed condiment sold as vinegar				Fine £1 and £1 1s. costs.
Non-brewed condiment sold as vinegar				
(second case)	...	...	...	Fine £1 and £1 1s. costs.
Snail in bottle of milk	...	...	...	Fine £3 and £2 12s. costs.
Cigarette in bread	...	...	...	Fine £5 and £3 3s. costs.
Nail in scone	...	...	...	Fine £5 and £1 17s. 6d. costs.
Dirty meat van	...	...	...	Fine £5 5s. Driver £2 2s. £2 2s. costs.
Dirty meat van	...	...	...	Adjourned <i>sine die</i> .
Nail in bread	...	...	...	Fine £5 and £2 2s. costs.
Mouldy pie	...	...	...	Fine £2 and £1 6s. costs.

One case in respect of preparing foods on unregistered premises is pending. Proceedings were withdrawn where a "dairyman" eventually complied with the requirement to display his name and address on a vehicle.

At the close of 1953 the Health Committee decided to cancel the registration of a processing dairyman owing to the unsatisfactory conditions of operating and an appeal was lodged.

It is the first time in Bristol for many years that this extreme action has been necessary in order to secure hygienic conditions for the handling of milk and it should be noted that the dairyman was given every opportunity to comply with requirements before removal from the register was recommended.

The appellant gave an undertaking, however, to improve the plant. New buildings with modern equipment were installed and the appeal was therefore allowed and the registration continued.

## Food Poisoning

The following tables give *diseases referred to the Food Section for investigation*, but it should be noted that a comprehensive report on the occurrence of these diseases within the City appears elsewhere in the report of the Medical Officer of Health.

## Food Poisoning

	Outbreaks				Single Cases	
	Identified	Cases	Unidentified	Cases	Identified Agents	Unidentified Agents
<b>1954</b>	<b>11</b>	<b>66</b>	<b>6</b>	<b>20</b>	<b>20</b>	<b>22</b>
1953	17	46	6	20	43	21
	Total Outbreaks for Year				Total Cases for Year	
	Outbreaks	Cases Concerned in Outbreaks			Identified Agents	Unidentified Agents
<b>1954</b>	<b>17</b>	<b>86</b> (inc. in cols. on right)			<b>86</b>	<b>42</b>
1953	23	66			89	41



**Dysentery—Total Cases for Year**

	Notified	Not Confirmed
<b>1954</b>	<b>414</b>	<b>86</b>
1953	93	40

**Paratyphoid—Total Cases for Year**

	Notified	Not Confirmed
<b>1954</b>	<b>4</b>	<b>1</b>
1953	4	1

**Typhoid—Total Cases for Year**

	Notified	Not Confirmed
<b>1954</b>	<b>1</b>	—
1953	3	1

**MILK INSPECTION**

Some 347 samples of raw milk, including that sold as tuberculin tested or accredited, were submitted for biological examination.

Twenty were reported as infected with tubercle bacilli involving supplies from six farms, from three of which milk was retailed raw. Reference to the Ministry of Agriculture and Fisheries resulted in the discovery and slaughter of an infected animal in each case and the herds were cleared. The other three supplies were milk due for pasteurisation.

Eleven samples were infected with *brucella abortus* from seven farms. In two cases milk was being sold raw and was diverted permanently to a processing dairy. The other five supplies were milk intended for pasteurisation.

A total of 617 samples of milk were secured for chemical analysis. The Public Analyst reported added water in 24 samples; abnormal non-fatty solids in 27; and deficiencies in fat were reported in 32.

Appropriate action was taken i.e. by repeat samples or warning where necessary and legal action was, or is, to be taken against four vendors.

**Designated Milk**

Excluding milk supplied to schools, 346 samples of pasteurised and 46 samples of sterilised milk were submitted for examination. Twenty-two pasteurised milks failed to pass the statutory tests. All sterilised milk was satisfactory.

In all, 213 samples of tuberculin tested and of accredited milk were secured and 35 failed the methylene blue (keeping quality) test.

Samples of milk supplied to the Ministry of Health mental hospitals were regularly submitted for biological, keeping quality and—latterly—the phosphatase tests. *Brucella abortus* was revealed in the milk from one farm, but pasteurisation plants have now been installed and all the milk sent to these hospitals is heat treated.

**Food Other than Milk and Ice Cream**

In the case of foods, liquors, spirits and drinking water, 1,571 samples were submitted to the Public Analyst in addition to the 161 "miscellaneous" samples, some of which are referred to elsewhere.



Adverse reports were made in respect of 25; in a few cases excessive tin was found in canned foods. Repeat samples were secured where necessary or the foods were condemned.

### Ice Cream

Of 214 samples secured for chemical analysis only one was below the compositional standard. A warning letter to the manufacturer resulted in satisfactory repeat samples.

There were 261 samples submitted for bacteriological examination by the methylene blue reduction test and they were graded as follows:—

<i>Grade 1</i>	<i>Grade 2</i>	<i>Grade 3</i>	<i>Grade 4</i>		
151	73	15	22	...	(1954)
163	41	15	12	...	(1953)

### Ice Lollies

There is no food standard for iced lollies but 114 samples were submitted for chemical examination and in no case was an excessive amount of mineral contamination or other harmful ingredient reported.

### Milk and Food Inspection—Schools, School Kitchens and Other Corporation Establishments

A total of 237 samples of milk supplied to schools, all of which is pasteurised were submitted for examination by the phosphatase and methylene blue reduction tests. Of these, 21 failed the methylene blue (keeping quality) test, but none failed the phosphatase test for efficiency of pasteurisation.

Examination of 241 samples of assorted foods was carried out, the samples being secured from the following premises:—

Redland Training College  
Bristol East School Kitchen  
Downend Babies Home  
Glenfrome Junior School Kitchen  
Romney Avenue Junior School Kitchen

Two brands of food colouring materials were reported by the Public Analyst to contain certain undesirable chemical ingredients and were withdrawn from stock. The other foods were satisfactory with the exception of some cereals and dried milk, etc., which were out of condition and were suitably dealt with.

## OTHER SAMPLING

### Medicines and Drugs

Of 441 medicines and drugs secured for analysis, adverse reports were received in respect of 14. These were old stock which had deteriorated or was deficient in part of the declared contents; in one case an incorrect label was used and the vendors were warned.

Some years ago teething powders came under criticism on account of the inclusion of mercurous chloride. Samples obtained during the year

were found to contain this ingredient. The retailer and manufacturer were notified and further samples secured; the Public Analyst now reports them satisfactory.

The 2,756 samples submitted under *The Food and Drugs Act, 1938* based on the population of the City at the 1951 census, 442,994, represents 6.22 per thousand.

### **Fertilizers and Feeding Stuffs**

Thirty-eight formal and 73 informal samples were taken under *The Fertilisers and Feeding Stuffs Act, 1926*.

Six were reported as being outside the permissive limits of variation of percentage constituents, seven were sold to the Inspector without any statutory statement of composition as required by the Act and two were improperly described. Warning letters were sent and repeat samples were secured or other appropriate action was taken in each case.

Legal proceedings in one case were contemplated but it was decided that further test samples should be obtained.

### **Rag Flock and Other Filling Materials**

No premises are licensed under *The Rag Flock and Other Filling Materials Act, 1951*, to manufacture rag flock but four premises are licensed as stores.

Forty-two samples of various filling materials were submitted for analysis but in no case was further action required by the Department.

### **Pharmacy and Poisons Act, 1933**

There were 527 persons as "listed sellers" under the Act entitled to sell Part II Poisons.

### **Notices**

Thirty-three Informal and ten Statutory Notices were served by the food section during the year and 28 Informal and eight Statutory Notices, including some outstanding from 1953, were complied with.

### **Food Poisoning**

During the year the food section was called upon to investigate 17 outbreaks of food poisoning, involving 86 cases, and 42 single cases. The comparable figures for 1953 were 23 outbreaks, 66 persons and 64 single cases.

An outbreak at a public school in the City was dealt with by the Chief Assistant to the Medical Officer of Health.

A minor outbreak at a Nursery School occurred when several children and staff were taken ill and were absent for a few days. Meals were supplied from a school kitchen, but no other cases were reported from

schools receiving the same food and it was not possible to trace the cause. Faeces specimens from kitchen helpers proved negative.

In no case during the year was it possible to establish the cause of the illness.

## **Dysentery**

There was a big increase in the number of cases of suspected dysentery coming to the notice of the Department—414 cases, of which 328 were confirmed, compared with 93 and 53 confirmed in 1953. Two outbreaks were at Day Nurseries but the other cases had no connection that could be established.

## **Typhoid and Paratyphoid Fever**

One case of typhoid fever and four cases of paratyphoid were investigated, compared with three and four in the previous year.

## **Lectures and Demonstrations**

During the course of the year, visits were arranged to various food preparing premises and lectures given on the work of the Health Department to medical and nursing students and overseas visitors ; lectures on food hygiene were given to women's guilds, school kitchen staffs, van salesmen and people in the licensed house trade.

## **Food Prosecution Cases**

### *Food and Drugs Act, 1938—Section 10*

This Section enables an authorised officer of a Local Authority to seize food which appears to him to be unfit for human consumption and to take it before a magistrate for condemnation.

The following two cases are instances of this power being used for the protection of the public of Bristol during 1954.

1. In March, 1954, information was received that purchases of loose breadcrumbs from a shop in the City appeared to contain rodent faeces and on examination this allegation was confirmed by the City Analyst. The information indicated that breadcrumbs contaminated in this way had been supplied on more than one occasion and test purchases made it obvious that breadcrumbs in this condition were frequently being sold from the premises.

The degree of contamination can be judged by the fact that in one sample of 1 lb. 10 oz. there were 87 separate faeces whilst in another sample of 16 oz. of breadcrumbs, there were 98 separate droppings.

When the Deputy Chief Sanitary Inspector interviewed the manager of the premises and revealed his identity, he was immediately told the breadcrumbs were not for sale in spite of the fact that he had

been served with 1 lb. when acting as an ordinary purchaser half an hour beforehand. The sack containing 75 lb. of breadcrumbs was found to be contaminated and seized under the provisions of Section 10 of *The Food and Drugs Act*, 1938, being taken before a magistrate and condemned. In subsequent proceedings against the firm for selling food which was unfit, fines to the extent of £110 plus ten guineas costs were imposed.

2. The second case concerned café premises known to be kept in a somewhat unsatisfactory condition. Notices had been served by the District Inspector in respect of various breaches of *The Food and Drugs Act* and on a routine visit early in May, the District Inspector found the premises were heavily contaminated with rodent faeces and that this contamination extended to certain foodstuffs including sultanas, flour and cooking fat, all of which presumably would be used in the preparation of meals. Even more significant, however, was the fact that a tray of chips which it was established, were to be served to customers that day, had mouse droppings upon them and some of the chips had been gnawed by mice. The Inspector seized these articles of food and a magistrate condemned them as being unfit for human consumption.

In subsequent proceedings fines amounting to £40 and costs of nine guineas were imposed.

It is pleasing to record that this café proprietor has since taken very effective measures to cleanse his premises and to comply with all the requirements of the department.

### **Clean Food Campaign**

A fair measure of progress was again made in connection with this important matter during the year.

Every effort is made by the Sanitary Inspectors to put over and teach the fundamental principles of food hygiene during their routine visits to all types of food premises.

The difference of standard between one premises and another is often striking and the amount of attention which is given to food hygiene varies very considerably. The more modern premises, with their clean services and better equipment, certainly give an impression of cleanliness and have a good effect on the habits of food handlers, but in fairness we must agree that often good standards are attained in the older premises, particularly where the managements are themselves interested in this aspect of public health.

It is certainly now more widely realised that cleanliness in itself is a good advertisement and indeed customers are taking notice when standards fall short of that which is considered reasonable.

For a long time now, health officers have encouraged public opinion along these lines and it is fair to assume that customers' impressions are being respected and catered for in many establishments. This develop-



ment is all to the good and will allow the health inspector to concentrate more on the food preparation rooms behind the scenes; thus with the general public and health officers working together and with enlightened managements, a gradual process of improvement can be anticipated.

The Chief Sanitary Inspector and his staff again assisted the Clean Food Campaign by lectures to the food trade and other organisations. The benefits of this continuous, but very worthwhile effort, are gradually becoming apparent.

During the year the Department was visited by the Hygiene Division, Ministry of Food, who desired to obtain a series of photographs to illustrate the hygienic handling and lay-out of food premises.

This City now has many food premises which include factories, shops and restaurants where quite a high standard of hygiene has been attained by the installation of modern equipment used by trained staff. Apart from the new premises in and around Broadmead and the well-appointed food shops to be found on the new estates, it is to their credit that many occupiers of older premises have carried out structural improvements and have introduced modern and easily cleansed equipment.

A list of the many commendable food premises in the City was made and the managements were very co-operative in this venture, with the result that many good photographs were taken and will be found useful, not only by the Ministry of Food nationally, but also by the Health Committee for local exhibition purposes.

### Dairies and Milkshops, Etc.

1953	REGISTRATIONS	1954
	<i>Milk and Dairies Regulations, 1949</i>	
15	Dairies (processing) ... ..	15
109	Distributors (Other Dairymen) ... ..	105
	<i>Milk (Special Designation) Regulations, 1949</i>	
14	<i>Pasteurised:</i> Dealers' (Pasteurisers) Licences ... ..	16
363	Dealers' Licences ... ..	372
20	Dealers' Supplementary Licences ... ..	18
2	<i>Sterilised:</i> Dealers' (Sterilisers) Licences ... ..	2
467	Dealers' Licences ... ..	477
5	Dealers' Supplementary Licences ... ..	9
148	<i>Tuberculin Tested:</i> Dealers' Licences ... ..	30
14	Dealers' Supplementary Licences ... ..	9
4	<i>Accredited:</i> Dealers' Licences ... ..	2
—	Dealers' Supplementary Licences ... ..	—
	<i>Food and Drugs Act, 1938</i>	
35	Manufacture, storage and sale of ice cream ... ..	34
1,067	Storage and sale of ice cream ... ..	1,134
187	Preparation of sausages, or potted, pressed, pickled or preserved food ... ..	197
154	Fish frying premises ... ..	—
11	Butter factories ... ..	11
39	Wholesale dealers in margarine .. ..	45

## Dairies, Milk Shops, Etc.

Samples Taken	Samples not Satisfactory	Chemical Analysis	Samples Taken	Samples not Satisfactory
1953			1954	
515	29	Milk ... ..	617	83
235	2	Ice cream ... ..	214	1
1,676	24	Other foods ... ..	1,484	25
332	10	Medicines and drugs ... ..	441	14
61	—	Rag flock ... ..	42	—
68	8	Fertilisers and feeding stuffs ... ..	111	15
109	34	Water (Baths) ... ..	108	32
90	—	Water (Others) ... ..	89	2
176	—	Miscellaneous ... ..	161	—
		<i>Bacteriological examination:—</i>		
281	2	Milk T.B. exam : City } Somerset } Gloucestershire } Other Counties }	347	20
428	31	Milk pasteurised ... ..	346	22
48	—	Milk sterilised ... ..	46	—
232	15	Milk schools ... ..	257	21
186	35	Milk T.T. and Accredited ... ..	213	35
2	—	Milk special ... ..	—	—
228	23	Ice cream : Hot mix ... ..	244	33
24	4	Cold mix ... ..	17	4
102	15	Plant tests ... ..	157	15
502	126	Churn and bottle tests ... ..	341	80
47	9	Shellfish ... ..	50	11
94	9	Water ... ..	92	5
77	77	<i>Cysticercus bovis</i> ... ..	48	48
216	—	Miscellaneous samples ... ..	131	—

## Other Registrations, Licenses, Etc.

1953	Other Registrations, Licences, etc.	1954
<i>The Rag Flock and Other Filling Materials Act, 1951</i>		
—	Licences to manufacture rag flock ... ..	—
4	Licences to store rag flock ... ..	4
30	Premises registered to use filling material ... ..	30
<i>Pet Animals Act, 1951</i>		
26	Licences to keep a pet shop ... ..	27
<i>Pharmacy and Poisons Act, 1933</i>		
591	Listed sellers of Part II Poisons ... ..	527
<i>Slaughter of Animals Act, 1933</i>		
76	Licensed slaughtermen ... ..	80
<i>Food and Drugs Act, 1938—Section 57</i>		
4	Licensed slaughterhouses (bacon factories) ... ..	4
2	Licensed knackers' yards ... ..	2
<i>Public Health Act, 1936</i>		
<i>Offensive Trades—Annual consent—</i>		
7	Premises ... ..	7
10	Trades ... ..	10



Adverse reports were received from the Bacteriological Laboratory in respect of the following samples :—

Milk :—	1954	1953
Tuberculous ... ..	20	2
T.T. and Accredited ... ..	35	35
Pasteurised ... ..	22	46
Ice cream—Grades 3 and 4 ... ..	37	27
Plant tests ... ..	15	15
Churn and bottle rinses ... ..	80	126
Shellfish ... ..	11	9
Water ... ..	5	9
<i>Cysticercus bovis</i> ... ..	48	77

Appropriate action was taken in all of the above cases.

## CITY WATER SUPPLY

*Particulars required by Ministry of Health Circular*

1. Whether the water supply of the area and its several parts has been satisfactory :—  (a) in quality ; (b) in quantity.	Yes.
2. Where there is a piped supply, whether bacteriological examinations were made of the raw water and, where treatment is installed, of the water going into supply ; if so, how many and the results obtained ; the results of any chemical analysis.	Raw waters examined bacteriologically before treatment by Bristol Waterworks Company. Raw water at Barrow before filtration—weekly. Raw water at Chelvey before chlorination—twice weekly—when pumping. Raw water at Litton before chlorination—weekly. After treatment found satisfactory.
3. Where the waters are liable to have plumbo-solvent action, the facts as to contamination by lead, including precautions taken, and number and results of analysis.	Not liable. Water is not liable to lead contamination and this is confirmed by weekly analysis of all City supplies.
4. Action in respect of any form of contamination.	On finding any trace of faecal contamination the matter is taken up with the appropriate authority immediately when further samples are taken until satisfactory results are obtained. Contamination after treatment has been negligible.
5. Particulars of the proportion of dwelling-houses and the proportion supplied from public water mains :—  (a) direct to houses ; (b) by means of standpipes.	(a) the whole of the population in the Bristol Area is supplied by public water mains direct to houses with the exception of a few isolated premises in the rural suburbs when the supply is free from private wells and subject to a form of chlorination. These are gradually being reduced as mains supply is laid on. (b) Negligible.



## (v) ATMOSPHERIC POLLUTION, NOISE NUISANCES AND OTHER MATTERS

### The Cleaner Air Campaign

During recent years there has been a tremendous increase of public interest in the condition of the air in towns and cities. The Bristol Health Committee has for many years supported the need for adequate control powers, and has added its weight in support of the National Smoke Abatement Society. This Society rejoices in the increased membership accruing from the awakening public interest now evident, particularly since the disastrous London "smogs."

The Bristol and District Regional Smoke Abatement Council, formed in 1937, continued its advisory work during the year, and the Annual Meeting held in November served to focus attention on the contributions which can be made by gas, electricity and smokeless fuels in improving the condition of the atmosphere.

During the year 474 visits and observations were made by the District Sanitary Inspectors in their efforts to deal with complaints of excessive smoke, grit and other atmospheric pollutions from industrial sources. This figure represents a 20 per cent increase in the number of visits over 1953. It can be said that as a result of this work a fair measure of improvement was effected, to the satisfaction of those residents who were directly concerned.

It is realised however that much more could be done to prevent pollution of the atmosphere in this City if powers were given to require prior approval of heating appliances, the formation of smokeless zones, and certification and registration of stokers, although it must be admitted that in this connection public health staffing problems present special difficulties.

It is felt, however, that Local Authorities are now alive to the need for more concentrated attention to this matter, and many sanitary inspectors are being appointed as specialist officers to deal with this important aspect of environmental hygiene.

In addition to smoke and grit emission, complaints were received with respect to the following :—

1. Black deposit from an industrial process in the Avonmouth area.
2. Fumes from a lead melting process, St. Philip's and Bedminster areas.
3. Fumes from a tin printing process in the St. George area.
4. Fumes from oil-fuelled industrial equipment.

It must be recorded with appreciation that every assistance has been given in the Bristol area by the Ministry of Housing and Local Government District Inspector under *The Alkali Works etc. Act*, who has at all times readily dealt with any complaints received about nuisance from industries coming within his control. In addition, Local Authorities in the Bristol district appreciate his advice on allied problems, the solution of which was also often helped by the full co-operation given by the Ministry of Fuel and Power. A great deal of the work on fuel problems previously carried out by this Ministry was, during the year, taken over by the National Industrial Fuel Efficiency Service which has been formed

with the object of establishing and maintaining high efficiency in the use of fuels. This organisation has become popularly known as "NIFES," and its officers are available to industrialists and others with fuel problems.

### **National Smoke Abatement Society**

The Annual Conference of the National Smoke Abatement Society was held at Scarborough. The Bristol Health Committee was represented by Councillor J. J. Milton, Chairman of the Sanitary Sub-Committee, and the Chief Sanitary Inspector.

One of the highlights of this conference was the address given by Sir Hugh Beaver, Chairman of the Government Committee on Atmospheric Pollution, who indicated that his Committee's report would be completed towards the end of the year.

### **Smoke and Grit from Railway Engines**

Reference has been made in previous Annual Reports to complaints of nuisance about smoke and grit emitted from railway engines, and this matter was again given attention during the year. Investigation has revealed that action now being taken by the British Railways Authority—including pre-steaming of engines, chimneys to draw off smoke from engine sheds, electrification and the use of oil firing instead of solid fuel, will in time do much to reduce pollution from this source.

### **A Burning Problem**

A complaint was received by the Health Department about unpleasant odours emanating from a private tip adjoining residential property in the Fishponds area.

Upon investigation, it was found that the fumes were due to a fire within the tip and the Bristol Fire Brigade co-operated with the firm owning the land to deal with this matter.

It was agreed that the quickest way of removing annoyance and discomfort to adjoining householders would be to bulldoze the surface of the tip, expose the seat of the fire, thus extinguishing it with the help of the Fire Brigade, and this co-operation removed cause for complaint.

### **Aftermath of Warehouse Fire—A Public Health Problem**

During the early evening of Monday, 17th May, a serious fire occurred in one of the large storage warehouses at the Port of Bristol Authority's trading estate, Chittening. The building, with a floor space of about 26,400 square feet was at the time packed with 12 feet high stacks of foodstuffs amounting to approximately 3,800 tons, comprising 2,100 tons sugar, 600 tons fishmeal and 1,100 tons of various animal feeding stuffs. The entire roof collapsed and the firemen had to hose an enormous quantity of water on the burning stacks to control the fire and prevent it spreading to other buildings.

On the following day a survey of the scene showed that most of the animal feeding stuff was of no further use and that only the residue of the sugar, palm kernel meal and fish meal had any salvageable value. In the case of the sugar a vast amount of it had been dissolved by the water used





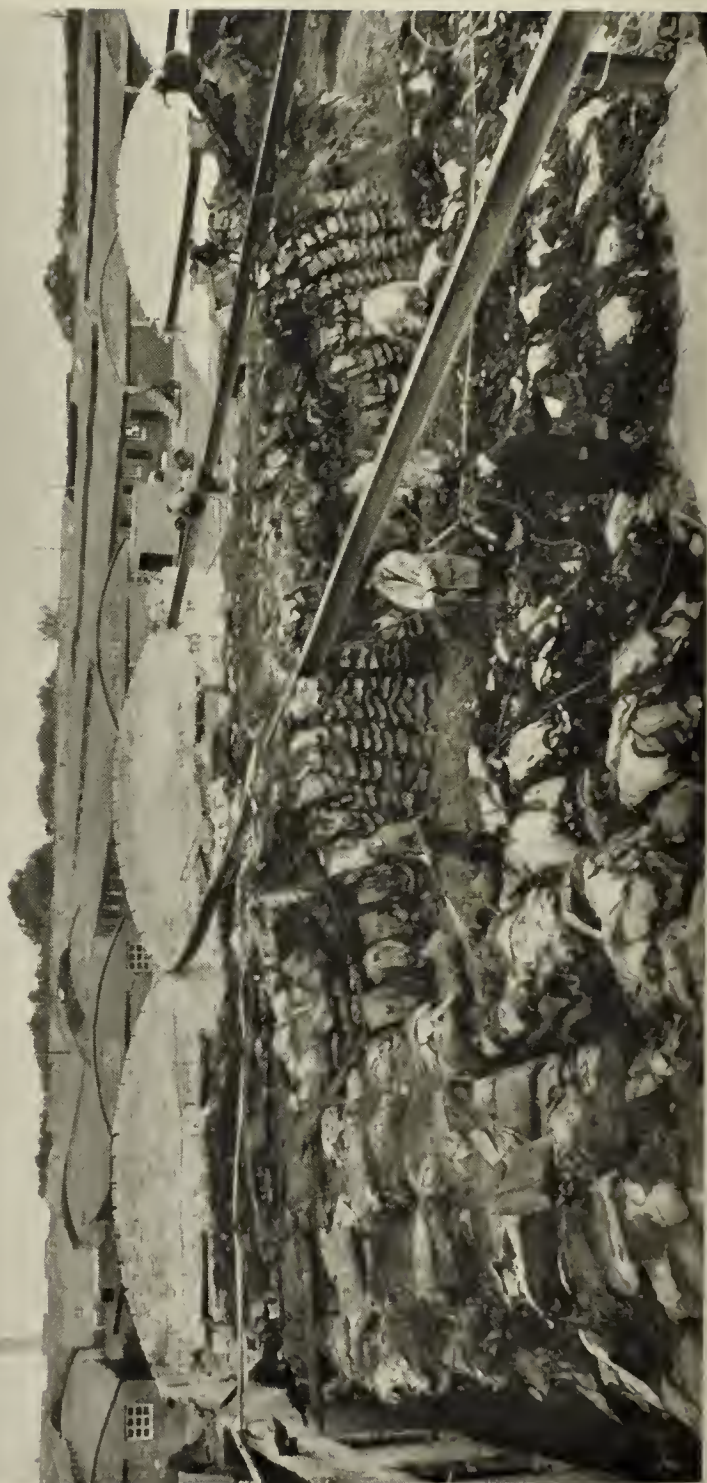


Fig. 2—Aftermath of Warehouse Fire—A Public Health Problem



to extinguish the fire and this had flooded the floor of the warehouse to form a quagmire of mollasses-like fluid which overflowed on to the adjoining railway siding to a depth of about a foot and extended about sixty yards beyond the building.

Conditions prevailing on the site (Figure 2) were such that a very serious nuisance would arise from extremely objectionable smells and major insect infestations—particularly flies—unless the large stacks of heated, moist and rapidly decomposing organic material were removed and disposed of in a satisfactory manner as soon as possible. The various firms concerned with the damaged feeding stuff and sugar were advised to this effect and daily visits of inspection were carried out to note any evidence of insect life in the stacks.

Some delay was experienced in settling the arrangements for clearing the salvageable and condemned foodstuffs with a result that the smell emanating from the stacks became so objectionable that justifiable complaints were made by the staff of a nearby factory which employed about 120 persons. All necessary advice and co-operation was given by this Department and deodourising units were installed in the factory to neutralise the unpleasant odours. This arrangement proved reasonably satisfactory.

Fourteen days after the occurrence of the fire there was evidence of fly and fly larvae activity in certain parts of the stacks and spraying with insecticides was commenced. This treatment was continued for a further seven days until the bulk of the nuisance-causing material had been removed to a disused quarry outside the City boundary where it was subsequently covered with earth.

Daily inspections were maintained until the site was entirely cleared and due to the previous very effective treatment with insecticides, further spraying was necessary on one day only to deal with an infestation of minute flies which had invaded the sugar impregnated soil adjoining the warehouse.

The maintenance staff of the Port of Bristol Authority's Engineering Department were very co-operative and their successful efforts in draining away the accumulation of water (molasses) from the building and railway sidings and removing truck loads of contaminated cinders from the permanent way were helpful in controlling the nuisance. Special mention should also be made by the members of the Health Department's disinfecting staff who worked daily under very bad conditions to ensure that fly nuisance was prevented from getting out of hand.

### **Problems Arising at a Large Sugar Store**

Due to special circumstances, very large quantities of sugar were stored at an open-air depot in Barton Hill. This work commenced in November 1953 when some twenty large stacks of sacked sugar were formed with a total weight of approximately 22,000 tons.

Each stack of sugar was covered with tarpaulins, but during the warmer weather months of the year, complaints were received from nearby residents to the effect that wasps and other pests were likely to be attracted by the sugar; to deal with this, spraying was carried out from time to time and discussions took place with those responsible for this form of storage and it became clear that these arrangements were temporary owing to unusual conditions of supply.

During October a serious fire broke out at some of these stacks, but the prompt action of the Bristol Fire Brigade prevented any great loss of this material.

Arrangements have been made for this sugar to be gradually removed to the refineries and no further deliveries are being made for storage in this way.

## **Noise Nuisance**

There is no general power conferred on Local Authorities to deal, with nuisance arising as a result of noise, but certain Local Authorities including Bristol, have somewhat limited powers contained in private Acts enabling them to deal with this matter.

The Bristol Corporation Act, 1938, Section 65 deals with excessive, unreasonable or unnecessary noise which is injurious or dangerous to health and although no statutory action has been taken, possession of this power has strengthened the hand of health officers when dealing with complaints of noise nuisance.

The effects of noise on human beings varies a good deal, but it is clear that noise as an accessory of the mechanical age, has in many cases attained such proportions that it should be dealt with as a public health problem.

Many cases dealt with during the year were complaints arising in connection with night work at factories and bakeries, builders' yard and sheet metal work carried out in a residential area. In some cases it was established that the noise complained of was unnecessary and improvement was obtained by approach to the managements, but one unusual complaint referred to the noise created by band practice. In this case a petition submitted by residents pointed out that "during one evening they had been treated to a loud playing of one rousing military march which had been repeated over and over again" throughout the session.

This complaint was overcome by a quieter rendering and more varied programme.

## **Offensive Trades**

The offensive trade premises in this City are mainly situated in the St. Philips Marsh area and during the year complaints were again received from residents in the Barton Hill area regarding offensive odours emitted by certain processors.

It is recognised that this type of premises carries out very useful work in the life of a large industrial city, but the question of a more satisfactory siting of the offensive trades has been discussed by the Health and Planning Committees from time to time.

During the year this matter was again raised and a special meeting of officers concerned with the planning aspects met and considered long-term proposals.

Every effort was made by the Chief Sanitary Inspector and his staff to ensure that special industries liable to give rise to nuisance are conducted in the most satisfactory manner having regard to all the circumstances.

## Pet Animals Act, 1951

Since this Act came into force on the 1st April, 1952, 31 shops have been licensed by the Health Committee. In every case the premises have been visited and reported upon by the sanitary inspectors so as to ensure that conditions for the accommodation and general welfare of animals are observed.

During 1954, 27 applications for licences were received and were dealt with as follows :—

Licences renewed	...	...	24
New licences issued	...	...	3
			—
			27
			—

Two businesses were discontinued during 1954 so that at the end of the year 25 licences were still in force and four new applications were awaiting the consideration of the Health Committee.

It is worthy of note that prior to licensing procedure there were but few pet shops operating in this City, but that since *The Pet Animals Act* came into force, pet shops have increased very considerably. During the year there was an undesirable development in connection with this type of premises in that some occupiers of pet shops also commenced the sale of food for human consumption. The danger to public health and contravention of food laws under these circumstances are obvious and particularly is this so in those cases where diseased and condemned raw meat is handled.

This question was raised by a member of the Health Committee and a quick survey revealed that four pet shops had recently commenced the sale of food for human consumption; this practice ceased when the matter was discussed with the pet shop licence holders concerned.

## (vi) RAT DESTRUCTION, DISINFECTION AND DISINFESTATION

### Rodent Control

The systematic methods of rat destruction which have been in operation in Bristol for some years have shown good results in that it can be said the City is freer of rats now than it has been for very many years.

The accounts one hears of heavy infestations suffered years ago now sound fantastic and damage to foodstuffs, with inherent danger to health has been reduced to quite small proportions. It is perhaps expecting too much that the City could ever be entirely free of rodents, indeed the number of complaints received proved that we still have a problem. In most cases, however, it would be true to say that complaints are now more quickly made than hitherto and that often the department is contacted when the first rat is seen on any premises.

This of course is all to the good and enables quick action with assessment of the size of any particular problem to be made ; dealing with the first rat seen prevents substantial infestations and the general public have now become schooled to this point of view.



The following detailed information of the work carried out has been provided by the Rat (Repression) Officer.

The total number of complaints received during 1954 was as follows : Rats 1,899 ; Mice 979, making a total of 2,878.

The number of complaints brought forward from the previous year as incompletely dealt with was 89 making the total number of complaints dealt with 2,967.

Under Part 1, Clause 3 of *The Prevention of Damage by Pests Act*, 1949, 2,630 occupiers notified this department that rats or mice infested their premises and appropriate action was taken.

Verbal notices were served on occupiers or owners of 248 premises drawing attention to their obligations under the above Act and in all cases these notices were complied with.

The two half-yearly maintenance treatments of the City sewers were carried out by the City Engineer's men under the directions of the Rat Officer, with the following results :—

No. of manholes baited ... ..	4,992
No. of manholes showing prebait takes ...	2,846
No. of manholes showing poison takes ...	2,205

In 113 cases suspected drains were referred to the Chief Sanitary Inspector for investigation and testing and remedial action was taken where necessary.

The offensive trades area and the surrounding properties continued to be free of any serious infestation and systematic and frequent inspections were made to ensure that this position continues.

The refuse tips throughout the City have also responded well to preventive measures, and offer no problem at this date. Demolition of old property, and the erection of both new industrial and dwelling-house buildings have been closely watched and the results have been excellent.

The destructor works have been regularly inspected and where necessary, action taken. The pig-food plant at Eastville also remained clear during the greater part of the year.

Heavy floodwater brought a number of common rats into the City from outlying areas and these established themselves in the banks of the waterways. Prompt action, however, brought them under control.

An outbreak of fire at a large sugar store in the Barton Hill area was closely watched for the spread of rodents and a block control measure was put into operation, 444 premises being visited and inspected but no evidence of rat infestation could be found.

Nurseries, schools, clinics, etc. made many calls on the Department's services during the year, and 785 treatments were carried out, chiefly against mice infestation.

Clerk Investigators visited 21,438 premises during the year this total comprising :—

Dwelling houses ...	18,766
Business premises ...	2,423
Local Authority ...	249



The number of infestations revealed by these visits was 88 rats ; 202 mice.

Close co-operation was maintained with the District Sanitary Inspectors with regard to defective drains and accumulations of rubbish or other materials likely to cause rat-harbourage ; also with the Food and Drugs Section where contaminated and suspected foodstuffs have been reported or found.

A quota of rats from various parts of the City was regularly submitted to the Department of Preventive Medicine for examination for plague and other diseases. The results of these examinations for 1954 have all been negative.

The number of wasps nests dealt with during the year was 109 (1953 : 133) ; 48 occupiers were given advice on how to deal with others more easily accessible.

The City, Avonmouth and Portishead dock areas were constantly inspected and treated, and although large amounts of grain, cocoa beans, etc. are continually being stored and moved, no evidence of damage or contamination by rats was reported.

The private business premises in these areas have shown a slight rise in common rat infestation during this period. This was accounted for by the new building schemes being carried out which necessitates vehicles being brought in from outside the dock area and food places being set up for the workmen.

The general position at the end of 1954 gave reason for satisfaction but it is hoped that further improvement will be made during the coming year.

### **Damage of Foodstuffs by Rodents**

The Chief Sanitary Inspector received information through the Ministry of Agriculture and Fisheries Infestation Control Department to the effect that approximately 130 tons of chocolate couverture contained in over 1,000 bales and stored in a Bristol warehouse, had been damaged and contaminated by rats.

This chocolate was the property of a firm outside the City and it was revealed that a quantity had recently been despatched from the warehouse. The firm was immediately communicated with to warn them of the danger, but the position was already known to them and instructions given that the chocolate was not to be used for human consumption. The Chief Sanitary Inspector of the area in which the factory was situated was warned of the circumstances by telephone and full details were forwarded by letter.

To safeguard public health, the matter was dealt with under Section 18 of *The Food and Drugs Act, 1938* and the Medical Officer of Health of Bristol served the requisite notice which required that none of the chocolate couverture should be used for human consumption or moved from the warehouse without approval. Meanwhile, a thorough investigation of the warehouse proved that rat repression measures previously undertaken had proved effective and that the warehouse was no longer infested with rats.

Undertakings were accepted as to the disposal of the chocolate other than use for human consumption and the public was thus protected against the consumption of contaminated foodstuffs.

At the same time it should be noted that occupiers of food premises are required to notify the presence of rodents to the Ministry of Agriculture and Fisheries under *The Prevention of Damage by Pests Act, 1949*.

The Officers of the Ministry co-operate very fully with the Local Authorities, but the question of direct notification from occupiers of food premises to Local Authorities was, at the request of the Health Committee taken up during the discussions at "Workable Area" meetings held in the west region.

### Rat Repression—Summary of Work Done During 1954

1953					1954			
Business Houses	Houses	Other	Total		Business Houses	Houses	Other	Total
88	73	21	182	Complaints incompletely dealt with brought forward ... .. Complaints received ...	32	46	11	89
870	1,430	277	2,577		984	1,532	362	2,878
958	1,503	298	2,759		1,016	1,578	373	2,967
901	1,280	280	2,461	<i>Remedial action:—</i> <i>Infestation cleared:—</i> By Corporation ... .. By Occupiers ... .. No action required Incompletion at end of year carried forward	955	1,392	355	2,702
10	39	—	49		8	20	—	28
15	138	7	160		17	133	3	153
32	46	11	89		36	33	15	84
958	1,503	298	2,759		1,016	1,578	373	2,967

1953					1954			
Avon-mouth	Bristol	Portis-head	Total		Avon-mouth	Bristol	Portis-head	Total
63	—	8	71	<i>Rats recovered:—</i> <i>Docks, quays, wharves, etc.:—</i> Brown ... .. Black ... .. Species not recorded Examined for plague Mice ... ..	92	1	7	100
89	13	—	102		142	1	—	143
—	—	—	—		—	—	—	—
45	—	—	45		62	—	—	62
26	19	1	46		44	9	—	53
			110	<i>City:—</i> Brown ... .. Black ... .. Species not recorded Examined for plague Mice ... ..				227
			99					158
			—					—
			31					51
			73					189

## Rat Repression

No. of Complaints of Rats or Mice		Dealt with by Corporation	Dealt with by Occupier	No action required	Out-standing
Out-standing 1953	Re-ceived 1954				
89	2,878	2,702	28	153	84
Type of Infestation Complained of			Bodies recovered from Premises		
Rats		Mice	Black Rat	Brown Rat	Mice
1,899		979	158	227	189
Dock area :—					
Bodies Recovered :—		<i>Rattus rattus</i> (black) 143	<i>Rattus norvegicus</i> (brown) 100	Mice 53	

## Disinfection and Disinfestation

The Disinfecting Station has continued to fulfil a valuable role in the control of disease and infestation in the City.

Newly developed boundary areas have increased the mileage and man-hours involved in this important aspect of public health work but the staff has coped with all the demands made upon it.

One service which has called for much additional mileage has been the daily collection of soiled linen from aged and sick people being nursed at home. The overall figure, 6,656 premises visited for disinfection and disinfestation shows an increase of 2,575 compared with 1953. This increase is due, in the main to 3,920 visits made for the collection of soiled linen and does not reflect any increase in the incidence of infectious disease.

This new service is a typical example of the way in which the flexible health service is appreciated and increasingly used.

For instance, following inauguration during August, 1953 of this system of cleansing the personal clothing and bedding of old people, often living alone, 166 calls were made up to the end of that year, whereas in 1954 the figure increased to nearly 4,000 visits in connection with this useful work which in many cases enabled aged people to remain in their homes for as long as possible.

Disinfections have shown an increase of 1,784 over the previous year and the number of infectious articles destroyed increased by 2,360. This latter figure is brought about mainly as the result of people requiring the destruction of bedding and clothing following the recovery or death of infectious cases, in particular, from cases of cancer.

The extent of vermin repression work performed for the various common lodging houses in the City indicates the public health control



In addition to the disinfection of 8 460 gymnasium shoes for the

Apart from the routine work of the Station, many large scale jobs were

Another important piece of work arose following the detection of

\_\_\_\_\_

1953		1954
3,021	Premises disinfected ... ..	4,961
62,567	Articles disinfected ... ..	55,902
9,772	Articles disinfested ... ..	10,406
2,999	Articles destroyed ... ..	5,359
356	Vermin repression—by spraying ... ..	387
200	Vermin baths—men ... ..	180
—	women ... ..	7
298	Disinfections for hospitals and nursing homes ... ..	131
452	Public Library Books collected and disinfected ... ..	246
36	Private Library Books collected and disinfected ... ..	18
71,636	Foodstuffs, etc. destroyed—canned food ... ..	63,043
10,638 lbs.	other foodstuffs ... ..	13,962 lb.
1,304	Food premises visited ... ..	885
58	Drain tests ... ..	53
766	Other work ... ..	799

(E1)  $D \vdash A \rightarrow B$  and  $\vdash D \rightarrow B$  iff  $\vdash A$ .

Thompson, J. (1991). *Gliff Scimitar*. In *Thompson, J. (ed.)* *Gliff Scimitar*. London: The Gliff Scimitar Society.



The primary objects of health education are to show people how improved use can be made of facilities and services available in the Health Department, and so far as the environmental health services are concerned, it can be said that this work is really worthwhile.

Apart from the visits made to many youth and adult organisations a large number of requests are made for technical health education by schools and colleges throughout the City. This year talks were given to school leavers from secondary modern schools and the interest shown by these students was very encouraging. Young women, training to become house matrons were taught the essentials of healthy environments and were acquainted with the local government services available to assist and advise them whenever the need arises.

The Principals of Training Colleges invited the Chief Sanitary Inspector to give a series of talks to student-teachers on various aspects of environmental health services. These invitations to talk to school children and those who teach is a real step towards the inculcation of healthy living and reasonable hygiene standards.

A number of students again visited the department from foreign countries, including the Sudan, Finland, Kuwait and China.

The opportunity presented to Sanitary Inspectors of playing an important part in the field of health education is of value not only locally but also on a national and international basis. Modern air travel allows countries to be reached in a comparatively short time. The potential pandemic spread of disease, as well as the cause of world health therefore demands that the maintenance of health can no longer be regarded as a local problem.

### (vii) FACTORIES ACTS, 1937 AND 1948

#### Inspection of Factories

Premises (1)	Number on Register (3)	Number of		
		Inspec- tions (4)	Written Notices (5)	Occupiers prose- cuted (6)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities ... ..	205	123	3	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority ... ..	795	935	24	—
(iii) Other Premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises) ...	47	—	—	—
TOTAL ...	1,047	1,058	27	—

**Cases in which Defects were Found**

Particulars  (1)	No. of cases in which defects were found				No. of cases in which prosecutions were instituted (7)
	Found (3)	Remedied (4)	To H.M. Inspector (5)	By H.M. Inspector (6)	
Want of cleanliness (S.1) ...	5	6	—	9	—
Overcrowding (S.2) ...	—	—	—	—	—
Unreasonable temperature (S.3) ...	3	1	—	4	—
Inadequate ventilation (S.4) ...	9	3	—	4	—
Ineffective drainage of floors (S.6) ...	—	—	—	—	—
Sanitary Conveniences (S.7) :					
(a) Insufficient ...	3	1	—	9	—
(b) Unsuitable or defective ...	29	33	—	23	—
(c) Not separate for sexes ...	—	—	—	1	—
Other offences against the Act (not including offences relating to Outwork) ...	2	1	—	3	—
<b>TOTAL ...</b>	<b>51</b>	<b>45</b>	<b>—</b>	<b>53</b>	<b>—</b>

**Outworkers—List of Outworkers Received during 1954**

Description of Homework	No. of Outworkers	
	February	August
Making of wearing apparel ...	56	14

**2. ADMINISTRATION OF THE SHOPS ACT, 1950, AND KINDRED LEGISLATION IN 1954**

E. G. H. Spencer

*Chief Inspector, Shops & Young Persons (Employment) Acts***SHOPS ACT, 1950****General Administration**

A total of 8,272 visits were paid to premises to which the Act applies ; of these 7,957 were retail and 315 wholesale shops or warehouses. It was also necessary to make 967 revisits to ensure that 873 infringements noted on initial visits had been remedied. A summary which gives more detailed information and also the number of shops in each particular class of trade, is shown in Table 1.

Legal proceedings were taken in three cases only—one in conjunction with the police. The latter concerned the sale of an air pistol to a boy aged 14. This lad was summoned by the police for having purchased same, being under 17—discharging the gun to the possible danger of the public, and possessing it without a licence.

The shopkeeper was fined for contravening the Shops Act by selling this article on a Sunday.

### **Exemption in Respect of Retail Trade at Exhibitions**

Exemptions from the closing provisions of the Act were given in respect of the following exhibitions :—

(a) The Bristol Horticultural and Chrysanthemum Society's Annual Exhibition at the Drill Hall, Old Market Street.

(b) The City and County of Bristol Horticultural Show, held at Durdham Downs.

(c) Bristol Aquarist's Society Annual Open Show and Exhibition at the Y.M.C.A. Hall, Trenchard Street.

(d) The National Convention of the Radio Society of Great Britain, held at the Royal West of England Academy.

The Health Committee was not satisfied that retail trade or business at three other exhibitions would be subsidiary to the main purpose of the exhibition, and exemption orders were not granted.

An increasing number of exhibitions were held by local traders in their own establishments and by groups of traders in hired halls. Many were under the impression that the provisions of the Act were not applicable, and in certain instances advertised a later closing hour than that permitted. An explanation of the regulations was usually sufficient to ensure compliance.

### **Complaints**

The number of complaints has again decreased, with a lower percentage relating to assistant's conditions.

### **Observation Patrols**

The regular system of patrols has again been effective in securing half-holidays for a number of assistants found working on their half-days, and one of the above mentioned cases resulted from this routine observation on early closing day. The local management had received verbal warnings and a letter had also been addressed to the head office of the company, relating to their failure to allow certain assistants a weekly half-holiday. As a result of the infringements noted on the occasion in question, and from subsequent investigations—hindered by the company's Area Supervisor—the company and the Supervisor were fined for :—

(a) Failing to keep records.

(b) Failing to allow statutory half-days.

(c) Obstructing an Inspector in the execution of his powers and duties.

No subsequent infringements have been observed at any of the company's shops, and although members of the staff are occasionally found working when the shop is closed, they invariably receive an alternative half-day now.

**Overseas Visitors**

On three occasions during the year, students of local government from the Near and Far East have been received and given a broad outline of the legislation and administration. A visit to one of Bristol's modern stores was arranged for each party, and the visitors were thus able to witness an Inspector carrying out a routine inspection.

**The Gowers' Report**

No new legislation has resulted from the Gowers' Committee's recommendations. From press and trade journals' reports, it would appear that this is causing some dissatisfaction to those whom the implementation would most affect. Apparently preparations for new legislation are well advanced and consultations have been held between the Home Office and representatives of employers and employees. As there has been no indication that Parliament is to consider these proposals in the very near future, a Member of Parliament is shortly to introduce a private Bill. It is understood that other members are supporting the Bill, which seeks to implement certain proposals contained in the Gowers' Report in so far as these will improve working conditions in office and other non-industrial employment not subject to existing legislation.

**Other Enactments**

- (a) *The Young Persons' (Employment) Act, 1938.*
- (b) *The Sunday Entertainments Act, 1932.*
- (c) *Employment of Women, Young Persons, and Children Act, 1920.*

Some 172 visits were made to premises subject to inspection under the above enactments. Certain minor infringements were observed, and 16 revisits were necessary to ensure that remedial action had been taken.

**Staff**

There have been no inspectorial changes during the year under review. The present staff is :—

Chief Inspector (M) ...	...	1
Inspectors (M) ...	...	2
Inspector (F) ...	...	1
Clerk (M) ...	...	1
TOTAL ...		5



Table I. Summary of Visits, Shops Act, 1950

1953		1954
No.	<i>Visits:—</i>	
8,322	Retail ... ..	7,957
381	Wholesale ... ..	315
	<i>Revisits:—</i>	
1,326	Retail ... ..	931
69	Wholesale ... ..	33
	<i>Infringements:—</i>	
724	Failure to exhibit notices ... ..	796
45	Half-holiday and compensatory holiday ... ..	41
7	Hours of young persons ... ..	5
46	Meal intervals ... ..	30
3	Seats for female assistants ... ..	1
807	<i>Verbal warnings</i> ... ..	862
14	<i>Warning letters</i> ... ..	8
4	<i>Legal proceedings</i> ... ..	3
712	Assistants' facilities—Referred to C.S.I. (Section 38) ...	341
	<b>Sunday Entertainments Act—Cinemas</b>	
74	Visits ... ..	68
8	Revisits ... ..	5
1	Infringements (holidays) ... ..	—
3	(records) ... ..	—
3	Verbal warnings ... ..	—
1	Reported to Licensing Justices ... ..	—
	<b>Young Persons (Employment) Act, 1938</b>	
105	Visits ... ..	104
5	Revisits ... ..	11
	<i>Infringements:—</i>	
1	(a) Night employment and hours ... ..	—
1	(b) Records ... ..	3
1	(c) Meal intervals ... ..	1
1	(d) Half-day and compensatory holiday ... ..	2
3	Verbal warnings ... ..	4
1	Warning letters ... ..	—
	<b>Inspectorial Staff—Work outside normal office hours</b>	
44	Evenings ... ..	23
10	Sundays ... ..	6

**Table 2. Summary of Bristol Shops Classified by Trades**

Animals, corn and flour	...	52	Milliners ...	...	37
Bakers and confectioners	...	515	Monumental masons	...	17
Basket makers	...	4	Motor car dealers	...	282
Bazaars	...	43	Music retailers	...	19
Boot and shoe retailers	...	290	Newsagent, P.O. Stationers	...	371
Butchers	...	423	Off Licences	...	131
Cafes	...	275	Off Licences selling groceries	...	129
Canvas	...	6	Licenced premises other than		
Chemists	...	191	Off Licences	...	588
Coal	...	46	Opticians	...	31
Cycle dealers	...	81	Photographers	...	29
Dairies	...	56	Picture dealers	...	5
Decorators	...	96	Pram retailers	...	19
Drapers	...	284	Radio and electric	...	161
Fishmongers	...	241	Seed merchants	...	17
Furniture and antique dealers	...	230	Shop and office fitters	...	43
Fur retailers	...	10	Sign writers	...	5
Gents outfitters	...	198	Sports outfitters	...	14
Grocers	...	1,235	Stamp dealers	...	2
Greengrocers	...	476	Tailors—trimmings	...	4
Hairdressers	...	378	Timber merchants	...	14
Ironmongers	...	252	Tobacconists	...	180
Jewellers	...	97	Umbrella retailers	...	3
Ladies outfitters	...	174	Undertakers	...	6
Leather merchants	...	18	Wardrobe dealers	...	44
Domestic machine retailers	...	46	Wools, art and craft	...	56
Marine stores	...	4	Wholesale premises	...	385
Metal workers	...	6		TOTAL	8,319

### 3. THE REPORT OF THE PUBLIC ANALYST & OFFICIAL AGRICULTURAL ANALYST FOR THE CITY & COUNTY OF BRISTOL FOR THE YEAR 1954

*(Incorporating the Work on Behalf of the County of Gloucester for the Same Period)*

E. G. Whittle

#### Staff for the Year 1954

<i>Public Analyst</i>	.. ..	E. G. Whittle, B.Sc. (Lond.), F.R.I.C.
<i>Additional Public Analyst</i>	.. ..	I. Dembrey, B.Sc. (Bristol), F.R.I.C.
<i>First Assistant</i>	.. ..	G. G. Fisher, B.Sc. (Birm.), A.R.I.C.
<i>Second Assistant</i>	.. ..	Miss E. E. Wilks, B.Sc.(Lond.), A.R.I.C.
<i>Third Assistant</i>	.. ..	J. Smyth, B.Sc.(Bristol).
<i>Fourth Assistant</i>	.. ..	D. J. Taylor, B.Sc.(Lond.), A.R.I.C.
<i>Assistant Spectroscopists</i>	.. ..	N. J. Atherton (Senior), P. Havas.
<i>Senior Technician</i>	.. ..	C. R. Turner
<i>Chlorination Officer</i>	.. ..	R. C. M. Putnam.
<i>Student Technicians</i>	.. ..	M. L. Passey, J. E. Davies, J. K. Faulkner, B. C. Forty, G. Hall, D. M. Cormack, Miss S. Johnson, Miss D. Rhead.
<i>Secretary</i>	.. ..	Mrs. I. Hall.
<i>Cleaning Staff</i>	.. ..	Mrs. N. Budd, Mrs. Comber (part-time).

#### INTRODUCTION

The level of the work for the year under review has just exceeded the previous year and this despite serious losses in trained staff. Four of the student technicians, all with not less than two years training, left in the latter half of the year. Three of the assistants, Pickard, Baker and Dicks, all went to more remunerative posts at the Long Ashton Research Station. Within the last few years no less than eight of the technician staff have been appointed to the Research Station, and whilst this reflects credit on the type of training given in this laboratory, it is a very serious loss to the Department and incidentally to the profession, for these men are not likely to return to public analyst work. This is to some extent an indication of the trend in local government service that recruiting is becoming more difficult and unless remuneration improves considerably trainees, students, etc., will certainly not stay.

The fourth technician, Long, left to take a medical course at the University of Edinburgh. He should do well and we extend our best wishes to him.

The senior spectroscopist left early in the year and the opportunity was taken to revise the organisation of this section of the work. It was decided to appoint another assistant spectroscopist with a definite chemical training to complement the physical and electrical bias in the training of the present assistant. Mr. Havas was appointed later in the

year and has settled down very well. The team should do well as the section's work is of great value to the laboratory. Incidentally all technicians are given a three months' course in this aspect of the work and this scheme is much appreciated by the individuals concerned.

A further upheaval in the routine of the laboratory arose from the resignation of Mrs. M. Manning due to ill health. Mrs. H. Stuart succeeded her but found it necessary to resign within two months for purely domestic reasons. Mrs. I. Hall was appointed in March, and considering the very unusual nature of the job particularly in coping with highly technical reports, she has done remarkably well, and I thank her most sincerely for her invaluable help and not least for her cheerfulness in tackling a difficult job.

It was perhaps no great surprise to learn of the death of Mrs. Wren after a brief final illness, for she has been ailing for a long time. We regret her passing for she was generally a cheerful soul despite hard life in her earlier days. At the time of her death she was on part-time work in the laboratory, although for several years she had coped well with apparatus cleaning. The part-time vacancy was filled with the appointment of Mrs. Comber who has worked well with Mrs. Budd.

The vacancies arising from the departure of the technicians were filled by the appointment of Miss S. Johnson, Miss D. Rhead and Messrs. G. Hall and D. M. Cormack. To these, and other new members of staff, we extend a warm welcome and hope they will be happy in their chosen careers. This introduction would not be complete without reference to the senior members of staff who have given invaluable service throughout the year, and I acknowledge with gratitude particularly the help given by the Additional Public Analyst, Mr. Dembrey, and the First Assistant, Mr. Fisher.

In October we were pleased to welcome in the Department, Mr. El Maghrabi from the Public Health Laboratory in Cairo. He has come to these laboratories for training in the vitamin analysis of foods, and has already been of great service to the Department.

Finally I thank the Inspectors of both the Bristol and Gloucester County authorities for their ever willing assistance in helping to make our efforts in Food and Drugs really worth-while.

I have to report that during the year I had the honour to be appointed to the Council of the Association of Public Analysts and a little later Secretary to the Food Standards Committee of the Association. This Association, working in collaboration with the Ministry of Food, is paying particular attention to formulation of food standards, to codes of practice and agreements.

The Report is divided into eight sections, as under :—

	Introduction
	Summary of Examinations
Part I	Food and Drugs Act
Part II	Fertilizers and Feeding Stuffs Act
Part III	Waters, Swimming Baths Samples, Effluents and Sewage Chlorination
Part IV	Rag Flock Act
Part V	Miscellaneous Analyses
Part VI	Atmospheric Pollution
Part VII	Spectrophotometry
Part VIII	Other Activities

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## SUMMARY OF EXAMINATIONS

TABLE 1 Bristol

Milk .. .. .	617
Food and Drugs .. .. .	2,133
Miscellaneous .. .. .	927
Rag Flock .. .. .	42
Fertilisers and Feeding Stuffs .. .. .	124
District Inspectors' Samples .. .. .	76
Water, Swimming Baths, etc. .. .. .	273
Atmospheric Pollution :	
Gauges .. .. .	87
Lead Peroxide .. .. .	135
Continuous Smoke Filters .. .. .	124
Phosphorus and Silica .. .. .	36
Spectrophotometric Analyses .. .. .	416
Chlorination visits and examinations .. .. .	180
Control of water supplies to Hospitals .. .. .	118
Smoke Recordings for Port of Bristol Authority .. .. .	292
	<hr/> 5,580 <hr/>

TABLE 2 County of Gloucester

Milk .. .. .	722
Food and Drugs .. .. .	532
Water .. .. .	128
Miscellaneous .. .. .	45
Fertilisers and Feeding Stuffs .. .. .	76
Atmospheric Pollution .. .. .	30
Merchandise Marks Act .. .. .	1
	<hr/> 1,534 <hr/>
GRAND TOTAL .. .. .	<hr/> 7,114 <hr/>

## PART I FOOD AND DRUGS ACT

The total of milk, food and drugs samples for the year was 2,750, a total indential with 1953, although with a rise in the milk samples and a fall in foods and drugs. Of the 617 milks, 56 were reported as adulterated, whilst of the 2,133 food and drugs, 17 received adverse comment. The sampling rate per 1,000 of population is just over 6 in respect of foods, milk and drugs, whilst the total of all samples at 5,580 is more than 12 per 1000 of population.

## New and Modified Legislation

1. *The Mineral Oil in Food (Amendment) Order 1954*

This order provided that the prohibition in the principal order relating to mineral oil in food should not apply in relation to citrus fruit containing not more than 0.1 per cent by weight of mineral oil per 100 parts by weight of citrus fruit, and consequently, extends the provisions as respects articles containing mineral oil to allow for the inclusion therein of citrus fruit containing not more than the permitted quantity of mineral oil.

2. *The Food Standards (Margarine Order) 1954*, operative from 16th May, 1954. The Order to be read with the *Food Standards (General Provisions) Order 1944* as amended, prescribes a standard for margarine as respects Vitamin A and Vitamin D to be contained therein. The standard applies on sale by retail only and applies alike to imported and home-produced margarine. The standard was as follows:—

Each ounce of margarine shall contain not less than 760 international units and not more than 940 international units of vitamin A, determined by the method set forth in the second schedule of the Order and not less than 80 and not more than 100 international units of vitamin D.

3. *The Food Standards (Soft Drinks) (Amendment) Order 1954*. The order extended the exemption of fruit juice from the provisions of the principal Order to include undiluted fruit juice with or without added sugar, and any such juice in concentrated (or frozen) form.
4. *The Strength of Spirit Ascertainment Regulations 1954*. The strength of spirits, methylated and fermented liquor, to be ascertained by reference to their specific gravity at 20°/20° Centigrade. This is an addition to various alternative methods.
5. *The Rag Flock and Other Filling Materials Regulations 1954*. This will be referred to under the section dealing with Rag Flock.
6. *Meat Content and Price of Sausages, Circular MF 13/54*. Averages of meat content and price quoted for 2,039 samples of pork sausages and 1,431 samples of beef sausages.  
On the 15th June the Minister had stated that he would not re-introduce standards of meat content for sausages, but would keep the matter under review. Analysts were asked to include in their quarterly reports details of samples examined, with prices.

Further the Minister had advised the trade to safeguard themselves by declaring the meat content of their sausages by label, ticket or other notice.

7. *Cream Soups, Circular MF 3/54*  
Revised code of practice for cream soups which must contain not less than  $2\frac{1}{2}$  per cent by weight of butterfat with certain alternatives.
8. *Food Standards Committee, Report on Zinc in Foods*  
The following limits were suggested :

- |                              |            |
|------------------------------|------------|
| (1) Beverages ready to drink | 5 p.p.m.   |
| (2) Other foods              | 50 p.p.m.  |
| (3) Edible gelatin           | 100 p.p.m. |

Certain foods, herrings, shell fish and crustacea, cereal and animal offals may contain high natural amounts of zinc and exception would not be taken to amounts in excess of 50 p.p.m. if it can be shown that such zinc is of natural occurrence.

9. *Food Standards Committee. Report on Lead in Food*  
The following limits were suggested :

- |  |            |
|--|------------|
| (1) Beverages, soft drinks and spirits | 0.5 p.p.m. |
| (2) Beer, cider                        | 1 p.p.m.   |
| (3) Other foods :                      |            |

(a) Ice cream and lollies	1 p.p.m.
(b) Canned fish and meats	5 p.p.m.
(c) Cocoa powder	5 p.p.m.
(d) Tea, flavourings, herbs	10 p.p.m.
(e) Food colourings	20 p.p.m.

Certain foods may contain naturally occurring lead in amounts higher than 2 p.p.m., e.g. shell fish, and no exception would be taken if the lead in such foods exceeded 2 p.p.m. if it can be shown that the lead is natural to the fish.

10. *Food Standards Committee, Report on Antioxidants in Foods*

The following recommendations were made:

- (a) that the Preservative Regulations be amended to permit the addition of certain antioxidants to foods ;
- (b) that antioxidants should only be added to edible oils and fats, but not butter, and to essential oils, but not flavouring essences ;
- (c) that for the present, official approval is restricted to propyl gallate, octyl gallate, dodecyl gallate and butylated hydroxyanisole in the following amounts :

	<i>Edible fats and oils</i>	<i>Essential oils</i>
Propyl gallate . . . .	0.01 per cent.	0.1 per cent.
Butylated hydroxyanisole	0.01 " "	0.1 " "

- (d) the purchaser of edible oils and fats must be notified of additions ;
- (e) all the above recommendations should be reviewed after two years.

11. *The Food and Drugs (Amendment) Bill* received Royal Assent late in the year, and, except for one section with immediate effect, would become operative early in 1955. The Minister promised early consideration of a Consolidation Bill and the promulgation of "Clean Food" Regulations. The Consolidation Bill would eventually result in one Act covering the 1938 Act, the 1950 Milk & Dairies & Artificial Cream Act, and the recent 1954 Food & Drugs (Amendment) Act.

### TABLE 3

## FOODS

Nature of Sample	Total Examined	Number adulterated or otherwise irregular
Milks .. .. .	617	56
Almonds, ground .. .. .	26	—
Angelica .. .. .	1	—
Apple purée .. .. .	1	—
Arrowroot .. .. .	7	—
Baking powder .. .. .	10	—
Baked beans .. .. .	9	—
Barley .. .. .	1	—
Beef essence .. .. .	1	—
Beer .. .. .	25	—
Benger's Food .. .. .	2	—
Biscuits .. .. .	11	—
Bisto .. .. .	1	—
Blancmange .. .. .	13	—
Bovril .. .. .	1	—

TABLE 3—continued

Nature of Sample	Total Examined	Number adulterated or otherwise irregular
Bread .. .. .	4	—
Breadcrumbs .. .. .	2	—
Buck wheat .. .. .	3	—
Butter .. .. .	24	—
Caramel dessert .. .. .	1	—
Caraway seeds .. .. .	1	—
Canned goods .. .. .	53	1
Cake mixture, flour etc. .. .. .	9	—
Cheese .. .. .	24	—
Chickelette .. .. .	1	—
Chocolate spread .. .. .	2	—
Christmas pudding and cake .. .. .	2	—
Chutney .. .. .	3	—
Chewing gum .. .. .	3	—
Cider .. .. .	15	—
Cloves .. .. .	1	—
Cocoa .. .. .	15	—
Coconut, desiccated .. .. .	10	—
Cockles, mussels and winkles .. .. .	9	—
Coffee and mixtures .. .. .	21	—
Coffee and chicory essences .. .. .	13	—
Colourings and flavourings .. .. .	39	—
Condensed milk .. .. .	24	—
Cooking fat, dripping and lard .. .. .	33	—
Cornflour .. .. .	5	—
Cocktails and wines .. .. .	9	—
Cream .. .. .	25	—
Creamed cereal .. .. .	1	—
Curry powder .. .. .	12	—
Custard powder .. .. .	21	—
Date pudding .. .. .	1	—
Dried egg .. .. .	2	—
Dried fruits .. .. .	72	—
Dried vegetables .. .. .	3	—
Dressed crab .. .. .	1	—
Drinking chocolate .. .. .	1	—
Edifas .. .. .	1	—
Fish cakes .. .. .	2	—
Fish and meat pastes .. .. .	21	—
Farinoca .. .. .	2	—
Faggots .. .. .	1	—
Flavoured milk .. .. .	1	—
Fruit salad .. .. .	1	—
Gelatine .. .. .	12	—
Glacé cherries .. .. .	1	—
Golden raising powder .. .. .	4	—
Gravy browning .. .. .	15	—
Ground ginger .. .. .	3	—
Guavas .. .. .	1	—
Haricot beans .. .. .	1	—
Herring roes .. .. .	2	—
Honey and honey spread .. .. .	14	—
Ice cream .. .. .	214	1
Ice lollies .. .. .	115	—
Jams and marmalade .. .. .	47	—
Jelly, powder and table .. .. .	26	—
Lemon curd .. .. .	14	—
Lemon crystals .. .. .	1	—
Lemonade, powders and crystals .. .. .	12	—
Lentils and split peas .. .. .	2	—
Liqueur chocolates .. .. .	2	—
Margarine .. .. .	38	—
Marmite .. .. .	2	—
Marzipan .. .. .	13	—



TABLE 3—continued

Nature of Sample	Total Examined	Number adulterated or otherwise irregular
Macaroni .. .. .	1	—
Milk powder, skimmed .. .. .	1	—
Milk food .. .. .	1	—
Mincemeat .. .. .	11	—
Mineral waters .. .. .	12	—
Mixed vegetable .. .. .	1	—
Mustard .. .. .	5	—
Mushrooms, tinned .. .. .	1	—
Nescafé .. .. .	1	—
Non-alcoholic wine .. .. .	1	—
Nuts .. .. .	10	—
Nut butter .. .. .	1	—
Nutmeg .. .. .	1	—
Oats and oatmeal .. .. .	10	—
Oranges .. .. .	14	—
Orange juice and squash .. .. .	2	—
Ovaltine .. .. .	1	—
Oxo .. .. .	3	—
Pastries, tarts and doughnuts, cakes .. .. .	19	—
Pâté de foie .. .. .	1	—
Pea flour .. .. .	1	—
Peas .. .. .	2	—
Pearl barley .. .. .	5	—
Pepper .. .. .	10	—
Pilchards .. .. .	4	—
Pudding sponge and cake mixtures .. .. .	11	—
Potato powder .. .. .	1	—
Rennet .. .. .	2	—
Ribena .. .. .	1	—
Rice and ground rice .. .. .	16	—
Rusks .. .. .	1	—
Sago .. .. .	1	—
Salt, plain and iodised .. .. .	13	—
Salad cream and mayonnaise .. .. .	7	—
Sandwich spread and welsh rarebit .. .. .	2	—
Sardines .. .. .	6	—
Sauces, pickles and ketchup .. .. .	39	—
Sausages .. .. .	5	—
Sausages in brine .. .. .	1	—
Seasonings .. .. .	12	—
Self raising flour .. .. .	25	—
Semolina .. .. .	7	—
Shredded suet .. .. .	10	—
Shredded Wheat .. .. .	1	—
Skim-milk powder .. .. .	4	—
Soft drinks .. .. .	25	—
Soup powder .. .. .	11	—
Soya flour .. .. .	1	—
Spices and herbs .. .. .	12	—
Spirits .. .. .	46	—
Starches .. .. .	25	—
Stuffing .. .. .	2	—
Sugar, icing, granulated and demerara .. .. .	37	—
Sweets .. .. .	21	—
Sweetened cake decorations .. .. .	1	—
Syrup and treacle .. .. .	2	—
Tea .. .. .	24	—
Tinned milk .. .. .	8	—
Tomatoes .. .. .	3	—
Trifle pack .. .. .	1	—
Vinegar, malt, apple and N.B.C. .. .. .	24	4
Vitacup .. .. .	2	—
Watercress .. .. .	1	—
Weetabix .. .. .	1	—

TABLE 3—*continued*

Nature of Sample						Total Examined	Number adulterated or otherwise irregular
Whipping compound	..	..	..	..	..	3	—
Yeast	..	..	..	..	..	2	—
Yoghourt	..	..	..	..	..	1	—
Total of foods with milks						2,296	62

**DRUGS**

Ammoniated tincture of quinine	..	..	..	..	..	13	—
Anadin tablets	..	..	..	..	..	4	—
Aneurine tablets	..	..	..	..	..	10	—
Ascorbic acid tablets	..	..	..	..	..	9	—
Aspirin tablets	..	..	..	..	..	13	—
A.P.C. tablets	..	..	..	..	..	2	—
Bicarbonate of soda	..	..	..	..	..	12	—
Boracic ointment	..	..	..	..	..	6	—
Boracic powder	..	..	..	..	..	6	—
Calamine lotion	..	..	..	..	..	7	—
Calomel ointment	..	..	..	..	..	2	1
Calcium lactate tablets	..	..	..	..	..	4	—
Camphorated oil	..	..	..	..	..	6	—
Carbolic ointment	..	..	..	..	..	7	1
Castor oil	..	..	..	..	..	9	—
Chlorophyll tablets	..	..	..	..	..	7	—
Cinnamon tablets and essence	..	..	..	..	..	2	—
Cod liver oil and malt	..	..	..	..	..	3	—
Cod liver oil emulsion	..	..	..	..	..	1	—
Cod liver oil capsules	..	..	..	..	..	2	—
Codeine tablets	..	..	..	..	..	7	—
Cold and influenza mixture	..	..	..	..	..	2	—
Compound syrup of hypophosphites	..	..	..	..	..	1	—
Cough mixture and syrup	..	..	..	..	..	7	—
Cough balsam and linctus	..	..	..	..	..	3	—
Diabetic pastilles	..	..	..	..	..	2	—
Ephedrine tablets	..	..	..	..	..	4	—
Epsom salts	..	..	..	..	..	4	—
Eye lotion	..	..	..	..	..	2	—
Flowers of sulphur	..	..	..	..	..	4	—
Friar's Balsam	..	..	..	..	..	6	—
Gee's linctus pastilles	..	..	..	..	..	1	—
Glauber salt	..	..	..	..	..	4	—
Glucodin Glucose	..	..	..	..	..	1	—
Glucose powder	..	..	..	..	..	1	—
Glycerine	..	..	..	..	..	8	—
Glycerine and honey	..	..	..	..	..	3	—
Glycerine of thymol	..	..	..	..	..	1	—
Granlukon diabetic food	..	..	..	..	..	1	—
Gregory powder	..	..	..	..	..	6	—
Haliborange	..	..	..	..	..	1	—
Halibut oil capsules	..	..	..	..	..	8	2
Headache tablets	..	..	..	..	..	2	—
Herbal preparations	..	..	..	..	..	9	—
Honey and horehound pastilles	..	..	..	..	..	1	—
Hydrogen peroxide	..	..	..	..	..	11	1
Iodex ointment	..	..	..	..	..	1	—
Infirmary syrup	..	..	..	..	..	1	—
Iron nerve tablets	..	..	..	..	..	2	—
Liquid paraffin	..	..	..	..	..	11	—
Liquorice powder	..	..	..	..	..	6	—
Magnesia powder and tablets	..	..	..	..	..	7	—
Medicated sweets	..	..	..	..	..	3	—
Mercurous chloride tablets	..	..	..	..	..	2	—
Nicotinic acid tablets	..	..	..	..	..	3	—

TABLE 3—*continued*

Nature of Sample							Total Examined	Number adulterated or otherwise irregular
Oil of almonds .. .. .	..	..	..	..	..	..	5	—
Oil of cinnamon .. .. .	..	..	..	..	..	..	2	—
Oil of eucalyptus .. .. .	..	..	..	..	..	..	5	—
Oil of lavender .. .. .	..	..	..	..	..	..	1	—
Oil of peppermint .. .. .	..	..	..	..	..	..	1	—
Olive oil .. .. .	..	..	..	..	..	..	7	—
Parrish's chemical food .. .. .	..	..	..	..	..	..	3	—
Phenacetin tablets .. .. .	..	..	..	..	..	..	11	—
Phenol ointment .. .. .	..	..	..	..	..	..	3	—
Phenolated iodine .. .. .	..	..	..	..	..	..	2	1
Potassium chlorate tablets .. .. .	..	..	..	..	..	..	6	—
Potassium bromide tablets .. .. .	..	..	..	..	..	..	6	—
" Peps " tablets .. .. .	..	..	..	..	..	..	1	—
Quinine and aspirin tablets .. .. .	..	..	..	..	..	..	1	—
Quinine sulphate tablets .. .. .	..	..	..	..	..	..	5	—
Rheumatic mixture .. .. .	..	..	..	..	..	..	1	—
Rose hip syrup .. .. .	..	..	..	..	..	..	3	—
Saccharin tablets .. .. .	..	..	..	..	..	..	4	—
Sal volatile .. .. .	..	..	..	..	..	..	6	1
Salicylic acid ointment .. .. .	..	..	..	..	..	..	5	—
Seidlitz powders .. .. .	..	..	..	..	..	..	10	—
Sodamints .. .. .	..	..	..	..	..	..	9	—
Sodium citrate tablets .. .. .	..	..	..	..	..	..	7	—
Sulphur tablets .. .. .	..	..	..	..	..	..	14	1
Tablets of charcoal .. .. .	..	..	..	..	..	..	1	—
Tartaric acid .. .. .	..	..	..	..	..	..	7	1
Teething powders .. .. .	..	..	..	..	..	..	5	—
Throat pastilles .. .. .	..	..	..	..	..	..	7	—
Tincture of iodine .. .. .	..	..	..	..	..	..	16	2
Tonic wines and restorative .. .. .	..	..	..	..	..	..	3	—
Veganin tablets .. .. .	..	..	..	..	..	..	7	—
Vironita .. .. .	..	..	..	..	..	..	1	—
Vitamin and mineral capsules .. .. .	..	..	..	..	..	..	2	—
Vitamin B preparations .. .. .	..	..	..	..	..	..	3	—
Vitamin tablets .. .. .	..	..	..	..	..	..	1	—
Vita-yeast .. .. .	..	..	..	..	..	..	1	—
White precipitate ointment .. .. .	..	..	..	..	..	..	1	—
Whitfield's ointment .. .. .	..	..	..	..	..	..	1	—
Winterwash .. .. .	..	..	..	..	..	..	1	—
Yeast tablets .. .. .	..	..	..	..	..	..	10	—
Zinc ointment .. .. .	..	..	..	..	..	..	8	—
Total of drugs .. .. .	..	..	..	..	..	..	454	11
Total of foods and milk .. .. .	..	..	..	..	..	..	2,296	62
TOTAL .. .. .	..	..	..	..	..	..	2,750	73

TABLE 4

	1950	1951	1952	1953	1954
Total No. of samples .. .. .	2,837	1,748	2,524	2,750	2,750
Milks per cent adulterated .. .. .	2.90	9.24	8.09	4.67	8.43
Foods (other than milk) per cent adulterated .. .. .	2.39	1.93	1.34	0.89	0.36
Drugs per cent adulterated .. .. .	2.17	6.2	1.60	1.18	2.42
Total per cent adulterated .. .. .	2.57	4.86	3.21	1.64	2.65

TABLE 5    Average composition of genuine milks for 1954

Month					No. of samples	Fat % average	Non-fatty solids % average
January	..	..	..	..	14	4.09	8.74
February	..	..	..	..	18	3.86	8.73
March	..	..	..	..	21	3.56	8.65
April	..	..	..	..	13	3.51	8.72
May	..	..	..	..	32	3.51	8.85
June	..	..	..	..	10	3.59	8.95
July	..	..	..	..	62	3.84	8.85
August	..	..	..	..	34	3.63	8.68
September	..	..	..	..	5	3.75	8.88
October	..	..	..	..	49	4.04	8.89
November	..	..	..	..	131	3.65	8.90
December	..	..	..	..	160	4.08	8.89
Total					549	Average for year : 3.76                      8.80	

Milk

A total of 617 milks were examined for fat, non-fatty solids and the preservatives formaldehyde, boric acid and sodium nitrite. The Hortvet test (freezing point depression) was applied to all milks showing non-fatty solids of less than 8.5 per cent.

Fifty-two milks were reported as adulterated as follows :—

X	1	Formal	8.2	per cent of added water.			
X	7	Informal	13.5	..	..	..	..
X	8	Informal	13.5	..	..	..	..
X	9	Formal	8.8	..	..	..	..
X	10	Formal	8.2	..	..	..	..
V	35	Informal	5.0	..	..	deficient in fat.	
V	36	Informal	20.0	..	..	..	..
W	4	Formal	5.3	..	..	of added water.	
W	6	Formal	21.7	..	..	..	..
W	10	Informal	18.3	..	..	deficient in fat.	
W	12	Informal	6.6	..	..	..	..
W	21	Informal	11.6	..	..	..	..
W	22	Informal	48.3	..	..	..	..
W	23	Informal	26.6	..	..	..	..
W	28	Informal	30.0	..	..	..	..
W	29	Informal	5.0	..	..	..	..
W	30	Informal	16.7	..	..	..	..
W	31	Informal	5.0	..	..	..	..

Bulk fat W 21-25  
was 2.60 per cent.



W 35	Formal	23.3	"	"	"	"	Bulk fat W 33-36 was 2.95 per cent.
X 44	Informal	8.2	"	"	of added water.		
X 45	Informal	8.8	"	"	"	"	
Z 28	Informal	11.6	"	"	deficient in fat	} Bulk fat Z 27-36 was 3.62 per cent.	
Z 29	Informal	6.6	"	"	"		
Z 30	Informal	16.6	"	"	"		
V 106	Informal	11.6	"	"	"		
V 120	Informal	5.0	"	"	"	} Bulk fat V 119-134 was 3.7 per cent.	
V 124	Informal	10.0	"	"	"		
V 127	Informal	5.0	"	"	"		
V 150	Informal	7.1	"	"	of added water.		
V 151	Informal	12.4	"	"	"	"	
V 175	Informal	1.8	"	"	"	"	
V 176	Informal	15.9	"	"	"	"	
V 188	Informal	21.2	"	"	"	"	
V 189	Informal	2.9	"	"	"	"	
V 191	Informal	15.0	"	"	deficient in fat.		
V 192	Informal	10.0	"	"	"	"	
V 204	Informal	10.0	"	"	"	"	Bulk fat V 200-214 was 3.6 per cent.
W 45	Informal	10.0	"	"	"	"	
W 46	Informal	11.8	"	"	of added water.		
W 47	Informal	8.2	"	"	"	"	
W 56	Informal	41.2	"	"	"	"	} Original fat contents of these milks were satisfactory.
W 57	Informal	52.4	"	"	"	"	
W 58	Informal	58.2	"	"	"	"	
W 59	Informal	43.6	"	"	"	"	
W 60	Informal	59.6	"	"	"	"	} Bulk fat W 61-67 was 3.28 per cent. Milk had an abnormal N.F.S. at 8.2 per cent. Bulk fat X 61-63 was 3.18 per cent.
W 62	Informal	11.6	"	"	deficient in fat		
W 63	Informal	10.0	"	"	"	"	
X 63	Informal	18.3	"	"	"	"	
X 88	Informal	5.9	"	"	of added water.		
X 89	Informal	8.8	"	"	"	"	and 10 per cent deficient in fat.
X 91	Formal	11.8	"	"	"	"	} Follow up samples to X 88 and 89. Milk had an abnormal N.F.S. at 8.2 per cent. Bulk fat X 106-109 was 3.38 per cent.
X 92	Formal	7.7	"	"	"	"	
X 106	Informal	6.6	"	"	deficient in fat.		
			"	"			
Z 107	Informal	2.9	"	"	of added water.		
Z 118	Informal	15.0	"	"	deficient in fat	} Milk had an abnormal N.F.S. at 8.35 per cent. Bulk fat Z 118-121 was 3.46 per cent.	
Z 120	Informal	5.0	"	"	"		

It will be noted from the foregoing list of adulterated samples that there were 27 milks with added water and 29 milks deficient in fat. In several instances, milk fat deficiencies related to samples forming part of a consignment and upon bulking, having regard to gallonage involved, the

whole consignment proved genuine. Such bulking is in no way justified with respect to watered samples, and in my opinion each churn must then be considered on its merits. The most serious fat deficiency was 48.3 per cent, whilst 5 milks from one source showed between 41 and 60 per cent of added water! No serious difficulties have presented themselves in respect of the unusual watering technique mentioned in my 1953 report. The Inspectors enquire carefully into the water régime and the final phrasing of the certificate to include "where the cows have received a normal watering régime" has not been questioned.

The Hortvet Test continues to be an invaluable aid in separating watered and abnormal milks. Twenty-two milks giving non-fatty solids, less than 8.5 per cent, were found to give normal freezing points, and the milks were in consequence returned as abnormal with respect to non-fatty solids.

One milk was returned as suspicious with a solids not fat of 8.2 per cent, and a freezing point depression of 0.524°C.

Two milks containing only 2.9 per cent of fat were returned as of poor quality.

Of 24 milks submitted as of Channel Island standard, i.e. containing not less than 4 per cent of milk fat, three only failed to reach this requirement and of these, two samples were part of a consignment which gave over 4 per cent fat in bulking.

## Foods other than Milk

**TABLE 6 Foods reported as adulterated or irregular**

VD	119	Malt vinegar	Informal	55 % deficient in acetic acid.
VD	163	Canned salmon	Informal	2.4 grains of tin per pound.
VD	308	Ice cream	Formal	6% deficient in fat.
VD	325	Malt vinegar	Formal	A non-brewed condiment.
ZD	343	Vinegar	Formal	A non-brewed condiment.
ZD	344	Vinegar	Formal	A non-brewed condiment.

## Drugs

**TABLE 7 Drugs were returned as adulterated or irregular**

YD	59	Carbolic ointment	Informal	56.8% deficient in phenol.
YD	73	Tincture of iodine	Informal	50.0% excess of iodine.
YD	74	Tincture of iodine	Informal	8.0% excess of iodine.
YD	84	Halibut oil capsules	Informal	2660 I.U. per capsule.
YD	90	Halibut oil capsules	Informal	3000 I.U. per capsule.
Both of the capsules were declared to contain 3750—5250 I.U. per capsule.				
VD	98	Tartaric acid	Informal	100% cream of tartar.
YD	99	Phenolated iodine	Informal	10% deficient in iodine.
YD	194	Hydrogen peroxide	Informal	30% deficient in hydrogen peroxide.
YD	172	Sal volatile	Informal	19% deficient in ammonium carbonate and 18% deficient in ammonia.
YD	375	Calomel ointment	Informal	12.5% deficient in mercurous chloride.
YD	402	Sulphur tablets	Informal	10% deficient in sulphur.

**TABLE 8 Comment on samples found to be infested, of poor quality, etc. All samples were informal in character**

VD	5	Spray skim milk powder	Poor quality due to incomplete solubility.
XD	60	Peas	Poor quality. Signs of infestation.
YD	88	Carbolic ointment	Poor quality. Low in phenol.
YD	93	Cold & influenza mixture	Poor quality. Low in morphine.
ZD	27	Lemon flavouring essence	Very bitter. Deterioration in storage.
VD	136	Milk food, half cream	Poor quality. Incomplete solubility.
VD	153	Prepared coffee	Poor quality. Out of condition.
VD	161	Condensed milk	Deteriorated in long storage.
VD	172	Grapefruit juice	Tin 1½ grains per lb.
VD	174	Chocolate spread	Mould growth.
VD	188	Treacle	Old stock.
VD	240	Malt vinegar	Only 3.8 per cent. acetic acid.
VD	248	Synthetic cream	Out of condition.
WD	64	Canned gooseberries	Tin 2 grains per lb.
XD	126	Semolina	Infested.
XD	127	Pinhead oats	Infested.
XD	145	Semolina	Infested.
YD	95	Teething powder	Mercurous chloride present.
YD	113	Sal volatile	Poor quality. Some loss of ammonia.
XD	264	Beans in tomato sauce	Tin 1.7 grains per lb.
VD	360	Dried apricots	In a dirty condition.
VD	369	Orange flavour	Out of condition.
VD	400	Margarine	Vitamin A undeclared.
XD	480	Marzipan	No evidence of ground almonds.
YD	327	Carbolic ointment	Poor quality. Only 1.4 per cent. phenol.
YD	335	Sal volatile	Slight excess of ammonia.
YD	426	Teething powder	} No evidence of mercury.
YD	427	" "	
YD	428	" "	
YD	429	" "	
ZD	324	Pork sausages	Poor quality. Meat 62.5 per cent.
ZD	325	Pork sausages	Poor quality. Meat 60 per cent.
ZD	383	Prunes	Mould growth
ZD	394	Coffee	Approximately 5 per cent. of chicory present.

### Fatty Substances

All samples of butter, margarine, cheese, cooking fat and suet were satisfactory. It is of interest to note that after the middle of the year, that is a few months after the cessation of rationing of fats, branded samples of margarine were found to be free from the preservative boric acid, which had been permitted up to 0.25 per cent. This accords with the provision made in *Statutory Instrument 1953, No. 1820, The Public Health (Preservatives, etc., in Food) (Amendment No. 2) Regulations*, wherein it was stated that boric acid could be added "only during such period as any rationing scheme is in operation for that commodity by virtue of any Order made pursuant to the *Defence (General) Regulations 1939*, and two months thereafter". Thus boron preservative is no longer allowed in margarine.

*The Food Standards (Margarine) Order 1954* operative from the 16th May, prescribed standards for vitamin A and D in margarine sold by retail, but applicable to home and imported produce. The Department had been pressing for the acquisition of a spectrophotometer for some time in the latter half of 1953, and with approval granted, the Unicam SP.500 instrument was ordered, and it arrived in early May. Another piece of apparatus for the chromatographic separation of vitamin A and carotene was also purchased and we were fully equipped for this important new technique. A good proportion of the margarine submitted



was checked for vitamin A and all were found to contain between 760 and 940 International Units per ounce, in accordance with Statutory requirements. The position with respect to vitamin D, where the Statutory requirement is 80 to 100 International Units per ounce, is not quite so happy. Work is in hand to develop appropriate methods, but for the moment the position is that vitamins A and D are added to margarine as a "master mix" in the proportions required by law, and provided the vitamin A content is satisfactory, it is assumed that the correct amount of D is present. Methods for vitamin D are primarily biological in character, and we are not in a position to check the accuracy of the "master mix" at the moment.

The 25 samples of cream complied with the appropriate fat requirements for the three designated varieties:—

- (a) Clotted or double thick cream to contain at least 48 per cent of butter fat.
- (b) Sterilised cream to contain at least 23 per cent of butter fat.
- (c) Single or coffee cream to contain at least 18 per cent of butter fat.

All samples of cream were also free from boric acid, gelatine and starch.

Standards for cheese products appear to be increasingly desirable and it is hoped that these will be implemented before long.

### Ice Cream and Ice Lollies

The 213 samples of ice cream satisfied the requirements in respect of fat, sugar and other milk solids. No boric acid or starch were detected. One formal sample only was deficient in fat to the extent of 6 per cent. No undue metallic contamination was noted in the 115 ice lollies examined. Standards of chemical composition seem desirable and the following might prove acceptable:—

Sucrose 7.5 to 10 per cent, fruit juice 5 to 10 per cent, addition of citric acid to be permissible, whilst lead, zinc, copper and other metals should be absent.

One lolly contained a trace of cadmium 1 p.p.m., but no explanation of its presence could be obtained.

After a short burst of popularity the hybrid preparation, part ice cream and part lolly, fell out of favour and no samples were submitted for examination.

### Oranges

Fourteen samples of oranges, as retailed, were examined for thiourea, with negative results. This matter was fully considered in dealing with samples from consignments submitted by the Port Health Authority. (See under *Miscellaneous*.)

### Canned Goods

These commodities were in general highly satisfactory. One sample of canned salmon contained 2.4 grains of tin per pound and was probably very old stock. It was obtained from a school kitchen.

In 1952 and 1953 I made a plea for the dating of canned and pre-packed foods to indicate time of manufacture. With reference to canned goods, the *Food and Drugs Amendment Act 1954* seems to make some such dating a practical necessity, if fair sampling is to be achieved.

The idea of dating cans has been put to several organisations and interested people during the year, and this fairly representative cross



section of the community is most decidedly in favour of such a procedure. In particular, the Townswomen's Guilds I have addressed, are very enthusiastic, and they may press for further information on the possibilities.

I am not impressed with the arguments against dating, mainly based on the expense of such a practice, because code marks for the manufacturer's information are already in full use and I fail to see why the public should not know the age of the product they are purchasing.

### **Vinegar and Non-Brewed Condiments**

Twenty-four samples were submitted and four received adverse comment. An informal malt vinegar was seriously deficient in acetic acid. It was obtained from a school kitchen and had very obviously suffered severe dilution.

Three formal samples, all purchased as vinegar or malt vinegar, proved to be non-brewed condiment. In no case did there appear any deliberate intention to defraud, but it is considered that retailers should now be well aware of the difference between vinegar and condiment, and that where vinegar is requested, then malt vinegar shall be supplied. Otherwise the public must be informed that the commodity for sale is a condiment. There are, of course, marked differences in food value and price. Malt vinegar, derived wholly from malted barley, is the product of a double fermentation process, the first stage converting sugar to alcohol, and then the alcohol to acetic acid without intermediate distillation, except in the case of spirit vinegar. The non-brewed condiment is simply a solution of acetic acid with the addition of caramel.

### **Sweets**

Twenty-one samples were examined and in most relevant instances, the butter fat content was sufficiently near to the 4 per cent to warrant the use of the word "butter".

One sample of an alleged marzipan confection gave no evidence of ground almonds. The matter was not pursued here because the manufacturers had been successfully prosecuted in Burnley and had agreed to alter the name to remove the offending word. This has been done with commendable promptness, and local supplies of the sweets bear the altered wording.

Two samples of liqueur chocolates both contained sufficient alcohol to warrant the use of the word "liqueur". The lesser amount of alcohol related to a continental product and the Circular MF2/52 indicates that the bulk of products of this character are of foreign manufacture with importers unknown to the Ministry. Hence for the present there is little to prevent the sale of so-called liqueur preparations, which contain little or no ethyl alcohol.

It is of interest to note that the foreign product examined gave a trace of methyl alcohol, but this could have been derived from synthetic esters used in the sweetmeat.

### **Sausages**

Only five samples were submitted and of these, two pork sausages were returned as poor quality, since they contained less than 65 per cent of meat. It is to be hoped that standards will be re-imposed before very long. A Ministry request for results of analyses with price of the sausages per pound, produced an interesting summary of the findings and

indicated that in general the old standards of 65 per cent meat for pork, and 50 per cent for beef as minima, were still largely applicable. At a Ministry suggestion, some manufacturers are labelling their products with a statement of minimal composition, although it might be argued that an article with less than the above quoted minima, even if so labelled, was not a "true" sausage. There also appears to be some necessity to regulate the amount of fat to lean meat. In the past, in some instances, at least half of the total meat has been fat. Such proportions mean that the sausage upon frying becomes a "ghost" of its former self.

### Preservatives and Colouring Matter

Thirty-nine colourings and flavourings were examined and only one, a lemon flavouring, received adverse comment.

All staple foods were free from preservatives and prohibited colourings, whilst various foods, which are permitted limited amounts of benzoic acid and/or sulphur dioxide, were found to comply with the Regulations.

At the time of writing, January, 1955, a report of the Food Standards Committee upon Colourings Matters in Food had just been published, and we are much interested in this laboratory to note that the idea, long suggested here, of prescribing for permitted colourings, has been proposed. This is a great step forward for the inadequacy of listing prohibited colourings has long been appreciated. Appendix III of the Report now lists 13 colours of natural origin, and includes carbon black, about which we should wish to know more in respect of its source, together with 32 synthetic colours. The recommendations of the Committee are worthy of quotation here:—

- (i) that the *Public Health (Preservatives, etc., in Food) Regulations 1925–1953* should be amended so as to permit the use in foods of specified colours only;
- (ii) that the present, official approval should be given only to the colouring matters listed in Appendix III;
- (iii) that the specified colours should be permitted to be used either singly or in any combination;
- (iv) that specifications of purity should be prescribed and published for each of the specified colours;
- (v) that the list of specified colours should be reviewed after a suitable period (say 5 years) in the light of any further evidence then available, subject to which and provided there is a demonstrable need colours may be added to or deleted from the list at any time;
- (vi) that colours, other than for marking purposes, should not be permitted to be used in milk, or in or upon meat, game, poultry, fish, fruit, vegetables, sold in the raw or unprocessed state;
- (vii) that in general, notification of the presence in foods of added colour should be given to the purchaser. Exceptions to this general requirement may, however, prove necessary;
- (viii) that colours sold for use in food should be appropriately labelled;
- (ix) that any regulations which may be made as a result of these recommendations should apply also to imported foods.

### Drugs

A further stepping up of drug sampling may be noted for the year. The figures for recent years have been 189 for 1952, 339 for 1953, and 454 for 1954.

Eleven samples were reported as adulterated, and a further ten required comment. Of particular interest were the teething powders. Certain of these powders have in the past contained calomel, mercurous chloride, and the use of such preparations is alleged to have caused mercurial poisoning in babies. In Bristol eight babies have been admitted to the Children's Hospital, and the laboratory have examined urines of these children with positive evidence of mercury. The manufacturers have been aware of the matter for some time, and months ago withdrew the bulk of the powders, and recent preparations contain no mercury. It is felt, however, that a few of the older powders may still be with retailers doing a small trade in the commoner drugs, and that it would be as well for them to check their stocks. All new preparations are specifically labelled as containing "No mercury".

There are, of course, other teething preparations on the market of an innocuous character, and one is worthy of mention from another aspect affecting the public pocket. This type contained not less than 98 per cent of lactose. Chemically pure lactose may be obtained for about 3/- per pound, and on this basis the preparation was selling at £13 10s. 0d. per pound. Comment would seem superfluous, as apart from this fantastic price, the efficacy of lactose as a teething powder, is also doubtful.

## PART II—FERTILISERS & FEEDING STUFFS ACT

TABLE 9

		<i>Formal</i>	<i>Informal</i>	<i>Irregular</i>
Summary, Bristol :				
Feeding stuff ..	..	21	9	17
Fertilisers ..	..	19	62	24
		—	—	—
		40	71	41
		—	—	—
Avonmouth :				
Feeding stuff ..	..	13	—	2
Fertiliser ..	..	—	—	—
		—	—	—
		13	—	2
		—	—	—
Gloucester :				
Feeding stuff ..	..	36	17	16
Fertiliser ..	..	9	14	8
		—	—	—
		45	31	24
		—	—	—

Thus of 200 samples, 65 required comment for irregularity, i.e. failure to provide a statutory statement, or deficiencies, or excesses of ingredients. Of the 41 Bristol samples requiring comment, the following points are made :—



TABLE 10

12	Potassic Blood & Bone	..	I	Some reversion of phosphate.
15	National Growmore	..	I	Low insoluble phosphate.
17	Bone Meal .. ..	..	I	Statement required.
2	Layers Mash	..	F	Low albuminoids and fibre.
23	Layers Mash	..	F	Excess of oil. Low fibre.
28	Fattening Meal	..	F	Oil & albuminoids slightly low.
4A	Deep litter pellets	..	F	Fibre slightly low.
6A	Layers mash with CLO	..	F	Fibre slightly low.
39	Meat and Bone Meal	..	I	Statement required.
40	Poultry Meal.. ..	..	F	75 per cent. deficient in oil.
An error was reported in the statement supplied. The oil was given as 12 per cent. and should have read as 2.5 per cent. when the oil found would be slightly above the upper limit of variation.				
41	Special Fattening Meal	..	F	A food supplement.
42	Poultry Supplement	..	I	A food supplement.
43	Sulphate of Ammonia	..	I	Found to be 99 per cent common salt.
46	Chrysanthemum Fertiliser	..	I	Excess of insoluble phosphate.
48	Turf Fertiliser & Weed Killer	..	I	Soluble phosphate a little high.
49	Bio Extract of Humus	..	I	A soil supplement.
55	National Growmore	..	I	Excess of soluble phosphate.
56	General Mixed Fertiliser	..	F	Nitrogen soluble and insoluble phosphate and potash, all underdeclared.
58	Bone Meal .. ..	..	I	Excess of phosphate.
61	National Growmore	..	I	Soluble and insoluble phosphate, outside limits of variation.
68	Nipko .. ..	..	I	Nitrogen slightly deficient.
69	Base Fertiliser	..	I	Deficient in insoluble phosphate.
64.	No. 1 Poultry Food	..	F	High albuminoids.
65	Pig Food Fattening	..	F	31.6 per cent. deficient in oil.
88	Balancer Meal	..	I	Statement required.
89	" "	..	I	" "
90	Layers Mash	..	I	" "
102	" "	..	I	" "
103	Feeding Meat & Bone Meal	..	F	Excess of oil.
104	Pig Food Fattening	..	F	26.6 per cent. deficient in oil; 23.3 per cent. deficient in fibre.
108	Trelcovite .. ..	..	I	A considerable loss of Vitamin A.
109	Protein Mineral	..	I	Satisfactory in respect of phosphate but use of the word "protein" is questioned.
82	Bone Meal .. ..	..	I	Excess of phosphate.
87	Blood, Fish and Bone Meal	..	I	Soluble and insoluble phosphate both high.
91	Basic Slag .. ..	..	I	Total phosphate slightly low.
92	Growmore .. ..	..	I	Total and soluble phosphate both high.
93	Fish Manure	..	I	Statement required.
96	K.P.N. .. ..	..	F	Very small excess of phosphate.
97	Special 3K National	..	F	Slight deficiency of soluble phosphate.
98	J. I. Compost	..	I	Not a true fertiliser.
99	Basic Slag .. ..	..	I	Soluble and total phosphate both high.
100	National Growmore	..	I	Insoluble and total phosphate both high.
101	Growmore .. ..	..	I	22.9 per cent. deficient in potash. 71 per cent. excess of total phosphate.

No further comment is made on the Gloucester samples as these were appropriately dealt with in quarterly reports to that authority.



## PART III WATER ANALYSIS AND SEWAGE

## Bristol

City water from tap at Canynge Hall .. .. .	51
City water from pumping station, Knowle .. .. .	12
Downend and Frenchay Hospital (West Gloucester supply) .. .. .	22
Wells, streams, lakes, etc. .. .. .	5
Seepage, sewage, trade effluents and river waters .. .. .	25
Docks and ships in port .. .. .	18
City mains supply (private houses, etc.) .. .. .	6
New council house (heating system) .. .. .	23
Swimming bath waters .. .. .	108
Miscellaneous .. .. .	3
	<hr/> 273 <hr/>

Two samples of the City supply were regarded as suspicious on account of the bacteriological report, but chemically all were satisfactory. Twenty-three samples were taken from the heating systems at the new Council House, College Green, in an endeavour to find the cause of corrosion in a section of the pipe work.

TABLE 12

Source	Bristol	Supply	West Gloucester Supply
	Tap at Canynge Hall	Tap at Jubilee Rd., Knowle	Taps at Downend and Frenchay
No. of samples .. .. .	51	12	22
	Parts per million		
Total solids .. .. .	291	352	327
Mineral matter .. .. .	256	306	295
Loss on ignition .. .. .	35	46	32
Chlorine as chlorides .. .. .	12	11	25
Nitrate nitrogen .. .. .	1.25	1.69	0.90
Free ammonia .. .. .	0.03	0.08	0.01
Albuminoid ammonia .. .. .	0.04	0.03	0.05
Total hardness .. .. .	256	310	255
Permanent hardness .. .. .	54	62	51
pH	7.7	7.4	7.6

It is of interest to note that in connection with samples from ships in port, we have obtained since 1951 analyses of waters from Calcutta, Said, Vancouver, Sorel (Canada), Almeria, Montreal, Dakar and Lake Chance (Port Arthur).

Of 108 swimming bath waters examined for free chlorine, 27 required the dose to be stepped up, whilst 6 were considered to contain unnecessarily high amounts of chlorine.

**TABLE 13****Gloucester**

Wells, springs and boreholes	..	..	..	..	..	59
Mains supply	..	..	..	..	..	49
Sewage, effluents and trade wastes	..	..	..	..	..	11
Miscellaneous	..	..	..	..	..	9
						<hr/> 128 <hr/>

**CHLORINATION****General**

Owing to climatic conditions, last summer saw the smallest use of chlorine since the war.

All plant was overhauled and tested by the end of May, and from then onward was kept running at the minimum rate of dose, ready for work in the summer that never came.

All machines were dried out and greased for the winter, towards the end of August and early September.

Sixty drums, each of 17-cwt. of liquid chlorine, were purchased, but 13 were returned at the end of the season, consumption was thus under 40 tons.

**River Treatment**

The river treatment plant at Ashton Swing Bridge was prepared in June, and for the first time a completely adequate water supply was available. The new pumping plant, set up near Nova Scotia Inn, should be capable of supplying all river chlorination demands, except for the necessary small auxiliary supply of clean water to operate the safety devices on the chlorinators.

**Pollution Problems**

The City Analyst, through the Chlorination Officer, is frequently presented with problems concerning river pollution caused by trade waste or other matter. Satisfactory solution of these troubles is sometimes rather difficult to find, and involves a continuous study of current practice and methods both in this country and abroad.

**Paddling Pools**

As in previous years, chlorination of the paddling pools at Blaise and St. Andrew's Park, with the addition of Arno's Court, has been done personally by the Officer and the Additional Public Analyst.

**PART IV RAG FLOCK ACT**

Forty-two informal samples were examined as prescribed by the 1913 Regulations. The laboratory is still not equipped to carry out the tests prescribed by the Regulations made under the *Rag Flock and Other Filling Materials Act* 1951. No new development can be reported on the working of the Regulations here, but a revised list of prescribed Analysts has been published and the full analysis can be done by these Analysts upon payment of the appropriate fees. As remarked in my 1953 Report, it does appear that Local Authorities are not likely to be greatly interested in the working of the Regulations.

With reference to this laboratory, the requirements of space in particular are a great stumbling block, at least two rooms would be required for the work, and at Canynge Hall such accommodation is for the moment, at least, non-existent. Despite this we have tried to keep the matter alive with chloride estimations and microscopical examinations on materials submitted.

Eighteen samples contained more than the maximum requirement of 30 parts of chloride per 100,000, but most of these samples were not in fact required to comply with this limit test in the 1951 Regulations.

## PART V MISCELLANEOUS ANALYSIS

TABLE 14

1.	Foreign bodies in foods	..	..	..	84
2.	General	..	..	..	212
3.	Examinations for hospitals	..	..	..	72
4.	District Inspectors' samples	..	..	..	76
5.	Atmospheric pollution	..	..	..	69
6.	University Departments	..	..	..	16
7.	Preventive Medicine Department	..	..	..	14

### Bristol Corporation Departments

8.	Town Clerk—Central Purchasing	..	..	..	4
9.	Port Health Office samples	..	..	..	340
10.	City Engineer	..	..	..	90
11.	Fire Brigade	..	..	..	3
12.	Transport and Cleansing	..	..	..	11
13.	Housing	..	..	..	1
14.	Architect	..	..	..	5
15.	Port of Bristol	..	..	..	7

### Gloucester County

16.	General	..	..	..	45
17.	Rain gauges	..	..	..	9
18.	Sulphur dioxide apparatus	..	..	..	21

TOTAL .. .. 1,079

### I.—Foreign Bodies in Foods, including Identification of Insects

There has been a considerable increase in the work in this Section and the following list gives an idea of the extraordinary collection of foreign bodies which have been isolated from various products.

TABLE 15

Laboratory No.	Article	Comment
143	Apricots .. ..	No infestation, but of poor quality.
170	Bun .. ..	Fibres from a brush, and not human, or animal hair.
222	Insects .. ..	Plaster beetles.
242	Iced cake .. ..	Piece of glass embedded.
254	Dried milk powder ..	Fragments of overheated milk.
263	Dried milk powder ..	Satisfactory.
264	Dried milk powder ..	Satisfactory.
265	Bread .. ..	Piece of oily dough present.
272	Sponge cake and pudding mixture ..	No infestation.
283	Loaf of white bread	Admixed with wholemeal.
308	Meringue powder ..	} No infestation.
309	Mixed spice .. ..	
310	Jelly powder .. ..	
311	Bread .. ..	Piece of oily dough present.
315	Bread .. ..	Piece of oily dough present.
327	Bread .. ..	Containing yellow meal worm.

341	Crabmeat .. ..	No glass present. Struvite a natural constituent detected.
345	Bread .. ..	Piece of oily dough present.
350	Figs .. ..	Heavily infested with mites.
403	Chips in pan .. ..	Each sample contained rodent excreta.
404	Biscuit tin containing flour .. ..	
405	Biscuit tin containing raisins .. ..	All samples were taken from a cafe. A total of £49 fines and costs was imposed.
406	Frying fat in tin .. ..	
407	Tray .. ..	
408	Scrapings from chip fryer .. ..	
409	Debris from rack .. ..	
410	Debris from under fryer .. ..	
411	Bracket from shelf .. ..	
412	Debris under table .. ..	
413	Box for food storage .. ..	
419	Sliced bread .. ..	
429	Insects .. ..	Embedded portion of a cigarette stub. Twenty-four insects all of the family <i>Dermestidae</i> .
457	Dried milk powder .. ..	Overheated fragments of the powder.
474	Milk bottle .. ..	Sour milk residues with appearance of dirt due to a badly abraded bottle surface.
475	Cake .. ..	Presence of dirty dough.
479	Slice of bread .. ..	Dough and dirt in bread.
564	Sausages .. ..	Ova of fly.
565	Sugar .. ..	2 per cent. of sodium bicarbonate present.
567	Portion of scone .. ..	Embedded nail.
572	Pieces of bread .. ..	Dirty dough present.
598	Malt vinegar .. ..	No vinegar eels.
599	Non-brewed condiment .. ..	100 vinegar eels per 100 ml.
600	Non-brewed condiment .. ..	10 vinegar eels per 100 ml.
601	80 per cent. acetic acid .. ..	No eels.
602	Bread .. ..	Part of a meal worm.
613	Non-brewed condiment .. ..	20 eels per 100 ml.
614	Non-brewed condiment .. ..	20 eels per 100 ml.
615	Milk .. ..	Snail present.
634	Corned beef .. ..	Portion of cotton fabric.
635	Insect .. ..	Privet hawk moth.
662	Loaf .. ..	Rodent excreta and tufts of fibres.
664	Cream slices .. ..	Portion of wood and dirt present.
708	Butter .. ..	<i>Aspergillus</i> mould.
713	Bread .. ..	Portion of unidentified insect.
717	Insects .. ..	Earwig and lice.
727	Non-brewed condiment .. ..	No eels.
728	Non-brewed condiment .. ..	No eels.
729	Non-brewed condiment .. ..	50 eels per 100 ml.
750	Bread .. ..	Husk, fibre, webbing and moth larva.
727	Piece of meat in flour .. ..	Piece of kidney.
759	Bread .. ..	Dirty dough present.
760	Non-brewed condiment .. ..	No eels.
778	Non-brewed condiment .. ..	25 eels per 100 ml.
779	Non-brewed condiment .. ..	No eels.
780	Bread .. ..	Piece of stone.
794	Fungi .. ..	Smuts and rust.
815	Porridge oats .. ..	Moth present.
818	Orange drink .. ..	Aluminium milk cap and black ant.
819	Bread .. ..	Dirty dough present.
820	Wrapped sliced loaf .. ..	Insect present, <i>Nitidulidae</i> .
821	Macaroni .. ..	No maggots.
833	Biscuits .. ..	No rodent attack.
844	Bread .. ..	Dirty dough present.
863	Brown loaf .. ..	Portion of ticket from flour sack.
864	Loaf of bread .. ..	Mould growth.
901	Sausages .. ..	Rodent excreta present also a piece of wood.
904	Fish paste .. ..	Small seed present.



944	Vinegar	..	..	Mother of vinegar growth due to <i>B. xylinum</i> . Vinegar eels also present.
946	Walnuts	..	..	Mould growth—poor quality.
947	Bread	..	..	Moth larvae present.
954	Chitterling	..	..	Straw present.
955	Flour	..	..	Very musty.
964	Rolled oats	..	..	53 pellets of rodent excreta in 1 lb. 12 oz. of oats.
965	Rolled oats	..	..	8 pellets in 7 oz. of oats.
971	Bacon	..	..	Knotted piece of material. The remains of a small bag containing salt used to pack bone cavities.

## 2.—General

Under this heading are listed some 212 examinations made upon a remarkable variety of articles and as in previous years it is obviously impossible to consider each sample submitted. Therefore a selection of the more interesting and unusual topics has been made.

A considerable number of dried skimmed and full cream milk powders were examined for general conditions including smell, taste, rancidity and reconstitution with reference to solubility. A few were rejected for undue amounts of insoluble powder, probably on account of long storage.

Some half-a-dozen food colourings were criticised for the presence of either diethylene glycol or iso-propyl alcohol. These solvents are used as the vehicle for the actual food colour, and I took exception in particular to diethylene glycol. Some 50 per cent of this substance was present in the colourings examined, and the glycol is without doubt very toxic as indicated by animal experiments, and the serious effects noted in America in 1937, when the glycol was used as a vehicle in a sulphonamide remedy and caused the deaths of some sixty people. It is understood that the firm responsible has now ceased business in food colourings. The matter of the use of iso-propyl alcohol is perhaps not so serious. The amount present was between 2 and 3 per cent and with better and safer alternatives it can at least be said that the presence of this alcohol is undesirable.

A number of brine pickles were submitted involving severe scumming and bacterial growth, and the problem was satisfactorily solved by treatment of the tiled pickle bath with hypochlorite, which was particularly effective in its sterilising action at the tile joints.

Several teas were examined for fluorine content and particularly in relation to the amount of this element which might be expected in the infusion. Very appreciable amounts of fluorine were found in the tea infusions, and this raises some interesting questions in relation to the desirability of adding fluorides to drinking water supplies in attempts to minimize dental caries, particularly in young children.

Attempts were made to examine diesel motor deposits collected upon filter thimbles. Various solvents were tried to extract possible carcinogenic compounds, and certain preliminary work was done with 3.4 benzpyrene. However, it was soon realised that work by Sir Ernest Kennaway and his colleagues at St. Bartholomew's Hospital, London, and by Dr. Paul Kotin and co-workers at the School of Medicine, University of California, U.S.A., was far in advance of any research we could usefully undertake here. Carcinogenic compounds are, without doubt, present in traces in exhaust gases from petrol and diesel engines, and under certain adverse conditions of engine operation, these traces may be highly significant. Dr. Kotin summarising work done in a paper to the Cancer Prevention Committee in New York in November, 1953, has this to say :—

“ The presence of carcinogenic hydrocarbons in the atmosphere of urban areas, indicates for need for their study to assess their possible role in the observed increasing frequency of human lung cancer. The parallel between this increase and the urbanisation and industrialisation of our society is positive. The introduction of the gasoline engine as the most prominent source of motive power is one of the chief characteristics of this industrialization and, in consequence, petroleum compounds and oxidation products have become one of the main air pollutant materials. The experimental carcinogenicity of certain of these products has been established and suspicion must be directed to them in relation to the lung cancer increase.”

A cream waving lotion, a setting lotion, and a wood worm preparation, were examined with reference to possible poisoning of an individual with particular attention to mercury. All three preparations were free from this element.

Two cider vinegars were examined for general constituents, in order to have available up-to-date information on this commodity for comparison with malt, vinegar and non-brewed condiments.

Two flavoured milks were found to contain about 85 per cent of full cream milk, together with fruit juice, sugar, flavour and colour. This matter was considered by the Food Standards Committee of the Association of Public Analysts. The Council of the Association suggested that Analysts should regard as genuine, a product sold as flavoured milk, which conforms with the following requirements.

- (a) It shall contain not less than 85 per cent of full cream milk, and not more than 15 per cent of a mixture of any of the following substances—sugar, liquid glucose, fruit juices and fruit acids, added flavouring, added colouring.
- (b) The full-cream milk shall be in accordance with the *Sale of Milk Regulations*. Milk powder and reconstituted milk shall not be used.
- (c) The 15 per cent of other substances shall not include more water than is reasonably necessary for the incorporation of the sugars and other ingredients.
- (d) The article is not a soft drink within the meaning of the *Food Standards (Soft Drinks) Order, 1953*, which specifically excludes milk and milk products. The label must therefore bear a declaration of ingredients and a statement of the minimum volume of the contents.

### 3.—Examinations for Hospitals

There was a marked increase in specimens received from hospitals. The following establishments submitted materials :—

The Children's Hospital, Cossham and Frenchay, Bristol Royal Infirmary, Bath Area Central, Southmead, Bristol General, Eye Hospital and Bristol Mental. Of the 72 specimens the following are worthy of mention :—

Twenty-one specimens of urine involving eight babies were received from the Children's Hospital and examined for mercury. One case indicates the rate of excretion over a period of weeks, and with the use of BAL, British Anti-lewisite. The five urines from one child gave 320, 1,090, 253, 184 and 98 micrograms per 24 hour specimen, whilst a second case involving six specimens gave 3,600, 400, 135, 338, 84, 196 micrograms per 24 hour specimen.

Six specimens of urine and three of blood were examined for lead ; four urines were found to contain traces of selenium and one of these specimens contained traces of cadmium and zinc both less than 1 p.p.m.

The remaining specimens of interest are shown in Table 16 :—

**TABLE 16**

M 105	Urine	..	..	..	No evidence of barbiturate.
106	Stomach washout	..	..	..	Approximately 2 grains Nembutal in 500 ml. washings.
110	Nail clippings	..	..	..	No evidence of arsenic.
111	Hair	..	..	..	No evidence of arsenic.
161	Stomach contents	..	..	..	No evidence of yellow phosphorus.
267	Breast milk	..	..	..	Of normal composition.
286	Dried egg	..	..	..	Unpleasant " doggy " odour.
287	Dried egg	..	..	..	
288	Dried egg	..	..	..	
477	Urine	..	..	..	No barbiturate.
478	C.S.F.	..	..	..	No epanutin.
568	Urine	..	..	..	6.5 mg. of sulphonamide per 100 ml.
553 to					
563	Bone dust	..	..	..	Examined for trace elements.
643	Grapefruit squash	..	..	..	Of satisfactory composition.
749	Water from hot supply	..	..	..	Trace of lead 0.04 p.p.m.
753	Vomit	..	..	..	No evidence of Cuprinol, dichloro-benzene or " Gammexane ".
754	Stomach washings	..	..	..	
811	Aluminium teapot	..	..	..	Severely pitted by caustic cleaning materials.

#### 4.—District Sanitary Inspectors' Samples

Seventy-six specimens submitted by District Inspectors included a wide variety of articles including foods and insects. The main items of interest are shown in Table 17 :—

**TABLE 17**

Insects	..	..	..	..	Identified as plaster beetles.
Palm kernel oil	..	..	..	..	Contaminated with iron oxide and sand.
Sweets	..	..	..	..	Damaged in storage.
Insects	..	..	..	..	Identified as specimens of <i>Attagenus Pellio</i> .
Breadcrumbs	..	..	..	..	Three samples each of approximately 1 lb. weight contained 87, 98 and 50 pellets of rodent excreta. Typical rodent hairs were found in all pellets examined. Fine of £110 imposed with £10 10s. 0d. costs.
Salmon in olive oil	..	..	..	..	Satisfactory but some doubt as to whether the fish was entirely salmon.
Infested bread	..	..	..	..	Species of <i>Tribolium</i> " rust-red flour beetle."
Insects	..	..	..	..	Red mites.
Wrapping paper	..	..	..	..	Nothing identified which would taint food-stuffs.
Insects	..	..	..	..	Flea beetles— <i>Phyllotreta nemorum</i> .
Insects	..	..	..	..	<i>Anobium Striatum</i> .
Insects	..	..	..	..	Larvae and nymphal forms of garden insects.
Insect	..	..	..	..	A garden beetle with some 20 parasitic mites attached.
Dried egg	..	..	..	..	In poor condition—unfit.
Insects	..	..	..	..	Family <i>Ixodoidea</i> -ticks. Parasites to birds etc. with the human sometimes acting as involuntary host.
Sago	..	..	..	..	No infestation, but the samples were very musty and were considered unfit.
Dried egg	..	..	..	..	5 pellets of rodent excreta found.
Biscuits	..	..	..	..	Excessive moisture—unsaleable.
16 samples of grit	..	..	..	..	Reference a grit nuisance. Grit tonnage up to 200 tons per square mile in the area surveyed.
Insects	..	..	..	..	<i>Tyroglyphus farinae</i> .



13 samples of dried egg .. ..	6 only acceptable. Others mouldy, with excessive moisture and unpleasant taste.
Insects .. ..	Golden spider beetles— <i>Niptus hololeucus</i> .
2 samples of rennet .. ..	One satisfactory and the other of objectionable taste and odour.

## 5.—Atmospheric Pollution

This selection of 69 specimens relates to pollution problems of a more specific character than the observations on rain gauges and lead peroxide, communicated directly each month to the Department of Scientific and Industrial Research.

Thus twenty-six observations were made for zinc and fluorine with special reference to the Avonmouth area and Table 23 gives the amounts of these elements in tons per square mile at two sites.

Twenty-eight examinations were made over a period of a few weeks at the request of the Somerset County Authority. An attempt was made to detect phosphine in the atmosphere, as a result of complaints regarding operations at the Phosphorus Factory. No phosphine was in fact found, but traces of phosphate and sulphates were found on a few occasions.

Nine examinations were made at the request of the Chief Sanitary Inspector of which five related to a dust nuisance in the Durnford Avenue area, whilst late in the year four examinations were made at each of two stations at Bryants Hill and Fir Tree Lane.

Late in the year also the laboratory undertook the examination of rain gauges set up in the Warminster and Westbury area. The gauges were set up at three sites and the October and November observations are included in this section.

## 6.—University Departments—other than as under 7 below.

Sixteen examinations were conducted on behalf of the Pathology, Physics and Chemistry Departments.

For the first-mentioned, spleen, liver and callus were examined. For the Physics Department five samples of titanium oxide were examined spectrographically, as were two samples of mercury sulphide and samples of phthalocyanin, benzanthrene, anthracene and tungsten.

## 7.—Preventive Medicine Department

The fourteen specimens included full analysis of two samples of agar, and five agars for iron and magnesium, one urine, three specimens of liver, Eleks medium, sterile horse serum and finally rat liver and kidney.

## BRISTOL CORPORATION DEPARTMENTS

### 8.—Town Clerk's Department—Central Purchasing

Only four samples were submitted, and included a detergent powder for comparison with others examined the previous year; two margarine samples were satisfactory and a sample which had undergone oxidative changes; whilst the fourth sample was a grey paint which was found to be deficient in oil and zinc oxide.

### 9.—Port Health Office

There was a marked increase in the port samples compared with 1953. In the main examinations concerned canned goods from all parts of the world, and items of interest will be mentioned, but other goods will first receive comment.



Some wheat mixtures contaminated with bauxite had been screened but this process had not removed the contaminant, and the wheat was rejected even as animal feed.

Seventy-five samples of oranges were examined for the presence of thiourea. This sampling covered the bulk of oranges entering the port. Only certain Spanish oranges contained any significant amount of thiourea, and then only in the peel. A number of Seville oranges were examined with negative findings, but as a follow up, a number of marmalades were examined for possible traces of the fungicide. The Ministry took rapid action in this matter and issued a directive that oranges found to contain thiourea should be promptly returned to the country of origin.

A number of samples, including currants, prunes, etc., were examined for sea-water damage. Positive evidence was obtained in the case of a consignment of prunes.

Some reconditioned rice found to be off-flavour was passed for animal feeding.

A sample of tea sweepings required for manufacturing purposes had sufficient amounts of caffeine and tannin to warrant extraction.

A somewhat fearsome-looking live insect over 4 inches in length, stated to have been found in a consignment of bananas, proved to be an excellent specimen of a wingless cricket. The insect was treated with the greatest respect until its identity was established.

The main troubles with canned goods related to blown cans and metallic contamination, particularly tin. However, the bulk of samples were very satisfactory and contained no undue amounts of tin, lead or copper. Several samples of tinned fruit, with between 1 and 2 grains of tin per pound, were passed with a request for early disposal.

## 10.—City Engineer

The 90 samples were principally soils and subsoil waters examined for sulphate content in relation to possible attack on foundation work. The areas surveyed included proposed housing sites at Stockwood, Hartcliffe, Withywood, Langford Road (Sports field) and Coombe Brook. The majority of the samples were satisfactory, that is the soils contained less than 0.25 per cent of sulphur trioxide, and the subsoil waters less than 300–400 parts of sulphur trioxide per million. These standards are not absolute, but simply working guides, since harmful effects have been noted when the amounts mentioned are exceeded.

Two soils from the Netham site gave evidence of cyanides, arsenic and antimony, and it was suggested that the area should be suitably fenced until such time as the ground had been levelled, terraced and generally prepared as a park and playing fields.

## 11.—Fire Brigade

In continuation of the policy of tightening up the regulations relating to the storage of petroleum products, samples were submitted by the authority for the flash point test. One sample, a plastic cement, gave a flash point of 91°F, another mixture 73°F, the statutory limit, whilst a third, an adhesive, was liable to the provisions of the *Petroleum Consolidation Act*, its flash point being 45°F.

## 12.—Transport and Cleansing

Ten of the eleven samples were pig food concentrates, with or without added blood and meal. All samples were satisfactory in respect of the amounts of water, ash, protein, fibre and fat.

The remaining sample was a lubricating oil alleged to have caused engine seizure. No evidence of sugar matter, the alleged cause, was found.

### 13.—Housing

Only one specimen was submitted—a collection of insects found to be larval forms of the clothes moth.

### 14.—City Architect

Of the five samples examined, four concerned a complaint involving bricks, mortar, asphalt and waters. Certain preliminary work was done, but it was later learned that the samples were from a private architect and not from the City Architect. The specimens were submitted to one of the City's consultant analysts.

The remaining sample, a pink paint, was not in accordance with the B.S. specification. The paint contained zinc oxide in partial substitution for white lead.

### 15.—Port of Bristol

The following seven samples were examined:—

Manganese (?)	..	..	..	Found to be magnetic oxide of iron.
Hydrogen peroxide	..	..	..	Of satisfactory strength. Required for atmospheric pollution observations.
A hand cleansing solution	..	..	..	A fatty acid soap. Alkalinity of a satisfactorily low order.
Material from a pump	..	..	..	The following metals were found—copper, magnesium, lead and tin.
Gypsum	..	..	..	This sample was submitted by the Pilotage Authority. It contained 20 per cent. water and 80 per cent. of gypsum.
Red lead paint	..	..	..	In accordance with B.S. specification.
Sheet proofing material	..	..	..	80 per cent. volatile matter with a flash point of 55°F. The solid matter contained a high proportion of a tin compound.

## GLOUCESTER COUNTY COUNCIL

**TABLE 18. Summary of Miscellaneous Samples**

Tap water	..	..	..	..	..	..	1
Pepper compound	..	..	..	..	..	..	1
Wrapping paper	..	..	..	..	..	..	1
Ice cream	..	..	..	..	..	..	13
Stewed apple	..	..	..	..	..	..	1
Milk	..	..	..	..	..	..	12
Pear, fresh..	..	..	..	..	..	..	1
Leaves	..	..	..	..	..	..	4
Tablets of sodium	..	..	..	..	..	..	1
Carbonate and bicarbonate	..	..	..	..	..	..	1
Canned pears	..	..	..	..	..	..	2
Oil from sewage	..	..	..	..	..	..	1
Corned beef with cereal	..	..	..	..	..	..	1
Margarine	..	..	..	..	..	..	4
Cockles	..	..	..	..	..	..	4
Teething powder	..	..	..	..	..	..	1
Atmospheric pollution :—							
Lead peroxide	..	..	..	..	..	..	21
Rain gauge	..	..	..	..	..	..	9

All samples of ice cream satisfied the requirements of the *Ice Cream Order*.

The tap water was taken at a garage with reference to a distilled water taken under the *Merchandise Marks Act*. The distilled water contained sulphuric acid and probably some tap water.

The pepper compound contained black specks which were in fact typical fragments of black pepper.

No unusual material was found on the wrapping paper which might account for taints imparted to foods wrapped therein.

The stewed apple contained no toxic metals or preservative.

Three of the samples of milk related to a complaint regarding the supply to a hospital. Four milks submitted of Channel Island quality were fully up to the required 4 per cent minimum of fat.

Two milks submitted by the County Sanitary Inspector were examined for copper which did not exceed the amount normally present in milk.

The remaining three milks were examined for foreign matter. One contained a green mould, whilst the other two school milks contained three dead slugs. There was a strong suspicion of tampering or practical jokes by children.

A pear contained a trace of arsenic 1.4 p.p.m. in the peel. This is about a reasonable maximum for foodstuffs. The taint was probably due to the solvent or vehicle for the arsenic as a fruit spray.

The specimens of leaves were submitted in relation to atmospheric pollution problems from a factory in the Compton Greenfield area.

The tablets of sodium carbonate and bicarbonate were pea steeping tablets. The trace of green colouring was not one of the prohibited dyestuffs. The presence of the dye should, however, have been declared.

The oil from sewage was probably a lubricating oil from a local garage.

The canned pears were of normal taste and small, and contained no toxic metals.

The canned corned beef with cereal was blown and carbon dioxide, hydrogen and sulphuretted hydrogen were all detected.

The four margarines, part of a consignment held up at the time of the dock strike, were free from obvious rancidity, but one had an unpleasant taste.

The four samples of cockles gave no evidence of contamination with oil.

The teething powder contained 12.9 per cent of calomel, mercurous chloride. Certain types of teething powders containing mercury, now largely withdrawn from sale, were alleged to have caused Pink disease in babies to whom the powders were administered. The operative words here are "largely withdrawn" because a few of the original powders still seem to be available from the small general store which may normally carry stocks of the common drug preparations.

Finally in the field of atmospheric pollution work, 12 lead peroxide cylinders have been maintained in the Hallen area, whilst from April the Kingswood U.D.C. authorised a survey in their area to include a rain gauge and sulphur dioxide apparatus.



## PART VI—ATMOSPHERIC POLLUTION

Table 19 summarises recordings made in relation to pollution problems :—

TABLE 19

Deposit gauges .. .. .	87
Lead peroxide for sulphur dioxide ..	135
Continuous smoke filters .. ..	124
Phosphorus and silica .. ..	36
Zinc and fluorine .. ..	26
Observations for other authorities ..	43
Sulphur dioxide recordings for Port of Bristol .. .. .	292
	<hr/> 743 <hr/>

It is interesting to note from the above table, the growth of this phase of the work and the increasing interest in the subject. The examinations made represent in effect 10 per cent of the work of the laboratory.

### The City

The four stations, concerned in the City survey, located at Marsh Street (City Centre), Shaftesbury Crusade (St. Philips), the Zoological Garden (roof of the elephant house) and Blaise Castle (roof of the stables), were all fully operative during the year, both in respect of rain gauge and sulphur dioxide apparatus.

It is worth while to indicate how the degree of pollution is measured, and in respect of the rain gauges we have the D.S.I.R. approved apparatus which consists essentially of a glass collecting bowl of known area, which feeds the rainfall into a bottle of some 10 litres capacity. Very approximately a full bottle of 10 litres would represent some 5 inches of rainfall. Each apparatus is left for one month, and on or about the 1st of each month the rainfall is collected and a fresh 10 litre bottle placed in position. In most cases the bottle is contained in a lagged box to protect it during frost conditions. At periods of heavy rain it may be necessary to inspect each site at mid-month, or as dictated by weather conditions. Upon receipt at the laboratory the collected rainfall is measured and examined for soluble, insoluble and tarry matters with estimations of calcium, chloride, sulphate and pH value. The Local Authority is a co-operating body of the D.S.I.R. in pollution surveys, and all results are submitted for correlation and assessment to the Director of Observations, Fuel Research Station, Greenwich.

Table 21 giving the results in tons of total deposit per square mile for 8 observation sites, shows that there has been little significant change in deposition data as compared with 1953. Most figures for 1954 show some increases, but these are slight having regard to the very marked increase in the rainfall for the year. We are all unhappily aware of holidays spoiled by continuous rain, and the records indicate an annual rainfall of about 40 inches on the City and the surrounding countryside, as compared with an average of 30 inches in 1953.

The Kingswood gauge was set up for the first time in January near the Council Offices, but was moved to the Park in April. However, the total deposition for the area was 184 tons per square mile, or somewhat higher than that at the Zoological gardens taken as a representative residential area.



## Continuous Smoke and Sulphur Dioxide Recordings

Recordings were made on 124 days with the apparatus set up at the laboratory for this purpose. Air is drawn from the Whiteladies Road, at second floor level, and passes through a Whatman No. 1 filter paper, with an effective exposed area of 1 inch diameter. This serves to trap smoke particles, and the filtered air is passed to a trap containing a diluted hydrogen peroxide, which collects the sulphur gases with the formation of sulphuric acid. The volume of air is metered and the apparatus is set to draw about 60 cubic feet per day. Suction is maintained by water pressure or a small electric motor. The filter papers were originally submitted to Sir Ernest Kennaway for examination for arsenic, radio-active substances and benzpyrene. For continuity of records, the papers are retained here should they be required for further investigations relating to the increased incidence of lung cancer in urban areas.

## The Avonmouth Survey

The three sites in this area are at the Docks, T. Farm and Green Splot Farm. All three are equipped for measurement of sulphur pollution, whilst the Dock and T. Farm sites are also provided with rain gauges. However, the rain collected is not examined by the usual methods, but with particular reference to the zinc and fluorine pollution in the area. The survey is essentially one of comparison and does not purport to be absolute. It is realised that the method of collection leaves something to be desired, but the obvious method of drawing air through an absorption train could not be readily controlled, and would involve much travelling to the area for sampling purposes. The data regarding zinc and fluorine appears in Table 23. The highest depositions of zinc 2.95 tons, and fluorine 0.23 tons occurred in March at the Avonmouth site. At T. Farm the highest figures were found in January, zinc 0.31 tons and fluorine 0.11 tons. It should be noted, that zinc includes zinc and its compounds, whilst fluorine includes total fluorine compounds principally as fluorides.

As far as sulphur is concerned, there is little change in the degree of pollution, although the heavier rainfall and presumably greater prevalence of S.W. winds, Green Splot shows generally higher figures than T. Farm. The Dock site, as in previous years, indicates much heavier sulphur pollution, ranging from 1.74 to 5.79 mgm. of  $\text{SO}_3$  per 100 sq. cm. per day.

## The Portishead Survey

Tables 21, 22, 24, indicate the deposit from rain gauge, sulphur trioxide and the phosphorus and silica figures for the area, whilst Table 25 gives a summary of deposit and rainfall over the period, since observations were commenced in 1949.

The deposition at Meadow Farm, the control country site, has kept very steady between 83 and 91 tons per square mile, and South Road has been fairly constant from 214 to 237 tons per square mile over the years 1951-1954. It should be noted that South Road at 178.1 tons per 10 months, would represent 214 tons in a full year.

At the Portishead Dock site, the years 1949, 1950, 1953, 1954, indicate a steady 530 to 560 tons per sq. mile. For some unexplained reasons 1951 and 1952 figures are vastly different and very much better at 300-340 tons per sq. mile (1952 is corrected to 340 tons). Fluctuations in rainfall do not entirely explain such variations, and without doubt wind conditions in the area are of considerable importance.

The phosphorus and silica figures show interesting points as compared with 1953. The summary (Table 20), gives the two years' results.

TABLE 20

			1953	1954
			Trace—0.43	0.13—0.90
Portishead	{	Sol. $\text{SiO}_2$ ..	Trace—0.43	0.13—0.90
		Insol. $\text{SiO}_2$ ..	4.29—60.06	11.60—31.06
Dock	{	Sol. $\text{P}_2\text{O}_5$ ..	Trace—0.07	Trace—0.06
		Insol. $\text{P}_2\text{O}_5$ ..	0.02—0.06	0.03—0.08
Meadow Farm	{	Sol. $\text{SiO}_2$ ..	Trace—0.10	Trace—0.20
		Insol. $\text{SiO}_2$ ..	0.20—0.91	0.21—5.09
		Sol. $\text{P}_2\text{O}_5$ ..	Trace—0.06	Trace—0.04
		Insol. $\text{P}_2\text{O}_5$ ..	0.003—0.04	0.01—0.05
South Road	{	Sol. $\text{SiO}_2$ ..	Trace—0.14	Trace—0.48
		Insol. $\text{SiO}_2$ ..	2.27—6.68	1.94—17.27
		Sol. $\text{P}_2\text{O}_5$ ..	Trace—0.10	Trace—0.04}
		Insol. $\text{P}_2\text{O}_5$ ..	0.01—0.06	0.02—0.07

Expressed in tons per square mile.

Whilst at the Dock, the July and August figures for 1953 indicated 28 and 60 tons of silicious matter, the general level of insoluble silica in 1954 was higher, ranging from 11.6 to 31 tons per sq. mile. The levels of phosphate soluble and insoluble do not appear to show any significant changes, either in respect of the two years or in comparison of sites, although as might be expected, the Dock site figures are generally somewhat higher.

Finally two other surveys may be mentioned. One in the City relates to a pollution problem in the Bryant's Hill, Fir Tree Lane area. The second, undertaken at the request of Dr. Reynolds, M.O.H., Westbury, Wilts, concerned three rain gauges set up in and around Westbury and Warminster, with respect to a possible pollution trouble. Neither of these surveys is sufficiently advanced to warrant any comment, since both only began in September, 1954.

TABLE 21

Deposit in tons per sq. mile	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals	
													1954	1953
Waterworks ..	20.2	32.1	23.2	15.38	13.60	23.19	19.11	17.39	22.62	27.35	27.95	21.03	263.1	257.5
Shaftesbury Crusade..	24.2	38.4	25.0	16.78	14.9	19.25	16.93	17.81	23.38	25.32	27.70	23.62	273.3	252.6
Zoological Gardens ..	8.8	16.8	14.2	16.42	11.7	14.38	11.30	8.89	10.06	8.70	22.07	N.A.	143.3	124.3
Blaise Castle ..	10.0	7.8	10.2	9.75	4.78	9.38	9.81	5.98	18.96	10.89	18.70	8.16	124.4	105.1
Meadow Farm ..	2.4	5.6	4.3	17.76	7.9	9.95	11.23	3.02	9.96	7.67	N.A.	8.42	88.2	84.3
South Road ..	18.9	33.9	17.1	13.65	21.8	15.25	15.69	15.57	15.43	16.92	18.34	11.87	214.4	237.5
Portishead Dock ..	35.1	51.8	31.7	44.36	33.8	50.14	60.23	46.55	75.71	37.55	35.76	49.74	562.4	506.8
Kingswood ..	24.9	16.7	17.6	11.96	9.9	11.02	17.62	19.9	17.84	16.73	16.86	2.63	183.7	—
Rain in inches :														
Waterworks ..	2.03	3.64	3.64	1.48	1.34	4.84	3.95	3.18	4.89	3.85	4.94	3.62	41.40	27.95
Shaftesbury ..	1.91	3.64	3.21	1.28	1.26	4.62	3.28	3.23	4.77	3.44	5.03	3.08	38.75	26.29
Zoological Gardens ..	1.96	4.45	3.14	1.70	1.42	4.39	4.44	3.79	5.62	4.58	4.71	N.A.	40.20	32.09
Blaise Castle ..	1.59	3.76	3.66	1.57	1.46	4.02	3.86	3.19	5.02	4.08	5.54	2.48	40.23	27.50
Meadow Farm ..	1.55	3.46	3.21	1.19	1.76	4.14	4.35	3.57	4.82	4.82	N.A.	3.16	36.03	31.20
South Road ..	1.33	3.46	2.66	0.64	1.60	3.88	4.25	3.39	5.18	4.25	4.47	2.50	37.61	27.65
Portishead Dock ..	1.81	3.25	2.8	0.87	1.55	3.46	4.49	2.58	5.36	4.28	4.33	2.63	37.41	28.60
Kingswood ..	2.12	3.02	3.02	0.53	1.80	5.00	7.27	3.18	5.16	2.75	5.29	1.80	40.94	—

## Sulphur Trioxide

TABLE 22

Mgmn. per 100 sq. cm. per day			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Watervorks ..	..	..	3.5	N.A.	2.81	2.90	1.53	1.24	1.02	0.89	1.09	1.34	2.64	2.35
Shaftesbury ..	..	..	3.38	2.25	3.65	1.80	1.65	1.48	1.18	1.34	1.98	2.61	3.09	3.07
Zoo ..	..	..	1.83	1.17	N.A.	0.71	0.42	0.09	0.09	0.03	Nil	0.09	1.03	1.25
Blaise Castle ..	..	..	3.70	2.11	1.05	0.96	0.37	0.20	0.15	0.13	0.27	0.34	0.99	1.21
T. Farm ..	..	..	1.86	0.69	1.05	0.91	0.58	0.15	0.32	0.41	0.10	0.18	1.10	1.11
Green Splot ..	..	..	1.54	2.24	1.16	1.02	0.56	0.78	0.90	0.41	1.10	1.63	1.87	1.90
Avonmouth ..	..	..	5.12	4.45	5.79	5.76	2.42	3.67	1.88	1.74	2.12	3.32	4.04	2.82
South Road ..	..	..	1.11	0.32	0.76	0.89	0.34	0.19	0.04	0.05	0.59	0.35	1.20	0.25
Down Road ..	..	..	1.27	0.56	0.70	0.89	0.46	0.25	0.04	0.13	0.04	0.09	0.81	0.48
Portishead Dock	..	..	1.72	1.64	0.87	0.83	1.37	0.54	0.32	0.33	0.60	0.84	1.20	0.58
Power Station	..	..	1.37	1.02	0.81	1.18	0.44	0.15	0.04	1.77	0.09	0.19	0.98	0.70
Kingswood ..	..	..	2.12	1.23	1.43 *	1.14	0.56	0.54	0.56	0.40	0.47	0.46	1.27	1.13

\* Site changed.



TABLE 23

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
AVONMOUTH DOCK No.	M180	M258	M346	M399	M496	M547	M653	M715	M824	M872	M920	M972
ZINC { Mgrm. Tons / Sq. Mile	8.4	20.90	86.32	52.10	15.0	21.42	4.6	10.0	3.52	2.8	7.56	2.50
	0.287	0.72	2.95	1.78	0.51	0.73	0.16	0.34	0.12	0.96	0.26	0.09
FLUORINE { Mgrm. Tons / Sq. Mile	3.24	5.87	6.804	5.81	2.31	1.53	1.60	0.95	Nil	2.13	1.584	0.86
Rainfall	0.111	0.201	0.233	0.199	0.079	0.052	0.055	0.033	Nil	0.073	0.054	0.029
	1.64	3.55	2.43	1.27	0.85	3.17	3.39	3.96	4.07	4.25	5.66	2.33
T. FARM No.	M181	M259	M347	M400	M497	M548	M654	M716	M825	M873	M921	M973
ZINC { Mgrm. Tons / Sq. Mile	9.0	3.93	3.75	3.98	4.2	2.52	2.3	6.0	1.26	1.05	3.35	0.75
	0.310	0.14	0.13	0.137	0.14	0.09	0.08	0.21	0.04	0.036	0.11	0.03
FLUORINE { Mgrm. Tons / Sq. Mile	3.13	0.51	0.454	0.504	0.71	0.112	0.44	0.15	Nil	Nil	0.628	0.37
Rainfall	0.108	0.018	0.016	0.017	0.024	0.004	0.015	0.005	Nil	Nil	0.022	0.013
	1.59	3.40	3.03	1.28	1.12	3.30	3.61	2.87	4.62	2.29	5.10	2.18

## Silica and Phosphorus

TABLE 24

TONS PER SQ. MILE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
PORTISHEAD DOCK	{ Soluble SiO <sub>2</sub> Insoluble SiO <sub>2</sub> Soluble P <sub>2</sub> O <sub>5</sub> Insoluble P <sub>2</sub> O <sub>5</sub>	0.13	0.19	0.16	0.27	0.50	0.47	0.90	0.33	0.81	0.18	0.66	0.48
		24.02	14.52	13.12	12.78	11.60	23.70	28.90	16.27	31.06	16.78	11.73	16.72
		Trace	0.03	0.02	0.005	0.04	0.05	0.06	0.05	0.02	0.05	0.06	0.05
		Not available	0.05	0.003	0.04	0.03	0.03	0.02	0.03	0.08	0.04	0.05	0.07
MEADOW FARM	{ Soluble SiO <sub>2</sub> Insoluble SiO <sub>2</sub> Soluble P <sub>2</sub> O <sub>5</sub> Insoluble P <sub>2</sub> O <sub>5</sub>	0.05	0.18	0.08	0.08	0.11	Trace	Trace	Trace	0.13	0.20	not	0.06
		0.44	1.21	1.44	5.09	0.82	0.59	1.16	0.21	0.51	0.33	avail-	0.79
		0.01	0.04	0.008	0.01	0.02	0.02	0.02	0.03	Trace	0.01	able	0.005
		0.01	0.02	0.012	0.05	0.03	0.03	0.03	0.02	0.02	0.02		0.013
SOUTH ROAD	{ Soluble SiO <sub>2</sub> Insoluble SiO <sub>2</sub> Soluble P <sub>2</sub> O <sub>5</sub> Insoluble P <sub>2</sub> O <sub>5</sub>	0.08	0.19	0.07	0.07	0.14	Trace	Trace	Trace	0.48	0.17	0.12	0.14
		6.77	17.27	5.20	2.75	4.13	3.01	1.94	available	3.44	3.60	6.11	3.42
		0.02	0.03	0.007	0.008	0.02	0.02	0.02	0.02	Trace	0.01	0.01	0.04
		0.02	0.06	0.017	0.03	0.03	0.05	0.04	available	0.02	0.04	0.07	0.03

TABLE 25

	RAINFALL IN INCHES					TOTAL DEPOSIT. Tons per sq. in.				
	1954	1953	1952	1951	1950	1949	1954	1953	1952	1951 1950 1949
PORTISHEAD DOCK ..	37.4	28.6	22.0 10 mths.	30.8	35.7	26.0	562.4	506.8 11 mths.	284.6 10 mths.	303.2 530.3 538.8
MEADOW FARM ..	36.0	31.2	34.6	36.7	36.1	23.9	88.2	84.3	91.4	82.8 116.9 73.8
SOUTH ROAD ..	37.6	27.6	34.2 10 mths.	29.4	—	—	214.4	237.5	214.2 10 mths.	178.1 — —

## PART VII.—SPECTROPHOTOMETRY

1954 has been a year of great changes in the Spectrographic Section. During the first few months, the disposition of apparatus in the available rooms was completely altered. The emission spectrograph, and all its ancillary apparatus were moved in to one room, while the various absorption instruments were collected in another. A Unicam SP.600 spectrophotometer was added to the equipment, and has already proved most useful. A third room was taken over for preparation of samples, and such chemical work as is necessary to spectrochemical analysis.

The staffing of the section has also been radically changed. The duties of the former Senior Spectroscopist were taken over by the former Assistant, and a new Assistant Spectroscopist appointed. A training scheme for technicians was started; each in turn serves as a second assistant for a period of three months, in which time he learns something of the modern spectroscopic techniques, as well as helping with the routine work of the section.

As a result of the changes, the Spectrographic Section has been able to take a larger part in the work of the Department. This is shown by the record number of 416 samples examined during the year. Of these, 323 were quantitative examinations on foodstuffs; this represents 78 per cent, a higher proportion than ever before achieved.

Apart from the first quarter, in which the equipment was out of action for some weeks, the flow of samples through the Section showed a steady increase over the rate of about 25 per month for 1950-53, to a maximum of 56 per month in the last quarter of 1954, thus the rate of working has been more than doubled. Incidentally, this last figure was achieved despite the fact that the Senior Spectroscopist, three times in the last three months, found himself with an inexperienced recruit, two of them at one time!

With all the other demands on the time available, development work was necessarily on a rather restricted scale in 1954. The main effort was concentrated on an examination of the absorptiometric determination of mercury in urine; this problem had been referred to the Spectrographic Section after some unusual colours had been observed by the Chemical Section, often coinciding with apparently negative amounts of mercury! The cause of these abnormalities was found to be the incidence of certain conditions, which were an inherent risk in the method; an alternative method was evolved, which was free from this particular interference, and also required less time.

On the emission side, no actual research was carried out, but a considerable amount of work was spent in reorganising the library of spectra of the metals so that the complete range of wavelengths can be covered in 3 plates instead of the 4 previously required; this economy was achieved by cutting out unnecessary overlaps of ranges. In the latter part of the year, a start was made on collecting the equipment for the general purpose source unit, the setting up of which will be the major part of the Section's development programme for 1955.



## PART VIII.—OTHER ACTIVITIES

Besides the analytical work of the Department, numerous other activities engaged our attention.

Lectures were given to the following organisations :—

The Henleaze Men's Contact Club, the Stoke Bishop Towns-women's Guild, the West of England Science Teachers' Association, the Bedminster Rotary Club, the Mothercraft Clubs at both Tyndall's Park and Stoke Lane, and to the men at the Falfield Prison.

These talks were of a general character and dealt with the work of the Department. Of a more technical character were the lectures relating to Civil Defence. Thus in two days in January, 12 lectures were given on the chemical aspects of the Technical Reconnaissance Service, whilst another and shorter session on this work was given to officials at the Clifton C.D. Headquarters. Other Civil Defence courses and discussions were attended in March, April and November, whilst in April a Refresher Course was held at the University for Technical Reconnaissance Officers.

Several visits were made to London to attend meetings of the Association of Public Analysts to discuss standards, codes of practice, methods of analysis and like matters. One visit was made to Liverpool to an Association meeting, and the opportunity was taken to see the City Laboratories there. Considering the laboratories were built as long ago as 1912, such was the foresight and planning of those responsible, that the design and construction appears admirable, and certainly more convenient than many laboratories which like Topsy "just grewed" in very ill-adapted buildings.

Two other visits were made to London in May and November to the Fuel Research Station at Greenwich, and to the Royal Institution of Civil Engineers, Great George Street, for conferences of the Standing Conference on Atmospheric Pollution. During the May visit, I also called on Sir Ernest Kennaway at St. Bartholomew's Hospital, in order to discuss matters relating to possible carcinogenic compounds in the atmosphere. I thank Sir Ernest and his colleagues for their most courteous reception.

Mr. D. J. Taylor began his T.R.O. Course at Falfield and later completed this with the University Course. Later still in the year he attended a course on Chromatography at the Royal Technical College, Salford. This subject is of increasing value to the Department, and it was of great advantage to get the latest information on the subject.

Other meetings included the usual quarterly meetings of the Gloucester County Weights and Measures Committee, the Preventive Medicine Sub-Committee Meeting, the discussion of the Report of the Medical Officer of Health with the Health Committee, informal talks with Dr. Willavoys, College of Technology on possible F.R.I.C. courses, and with Mr. Hutchinson, Town Clerk's Department, on lectures relating to Food and Drugs Law, two press conferences, discussion at the Docks Office on treatment of trade wastes.

Two visits were made to the New Council House to survey the heating system and to take samples with particular reference to dissolved oxygen in the circulating water.

A sessional meeting of the Royal Sanitary Institute in March included a most instructive visit to the Chew Stoke Reservoir. The members were afterwards entertained at the Mansion House.

Visits to the laboratory were made by three groups of Student District Nurses in February, May and November ; Health Visitors in February, Colston School Girls in March, and Pre-Nursing Students in June. Other visitors included Mr. Lea, Imperial Chemical Industries, Mr. Love, County Analyst for Worcester, Miss Goddard, Langford Veterinary Department to discuss methods for iron in biological materials, and later in the year, five local Government Officers from the Sudan and Tanganyika.

Twelve attendances were required at court, both in Bristol and Gloucester County for cases relating to bread, cake, milk, breadcrumbs and petroleum products.

Docks enquiries included information regarding xylene, divinyl benzene, silico-manganese, ferro silicon, calcium silicide, acetone, acetaldehyde, formaldehyde, isobutyl alcohol and other solvents, vinyl acetate, dipropylene and n-propylene.

Information was also given to the Bristol Royal Infirmary regarding the composition of a metal cleaning fluid, which had been taken by a man who later died. On this connection I would acknowledge the help given by the City Analyst for Kingston-upon-Hull.

Finally at a lecture given by Dr. Woodward of the U.S.A., senior members of Staff were greatly intrigued, not to say fascinated, by the really brilliant discourse on the synthesis of strychnine.

# PORT HEALTH SERVICES

## Medical Inspection and Sanitary Circumstances

Dr. D. T. Richards  
*Senior Medical Officer (Port)*

### SECTION I

#### Staff

No changes have occurred during the year.

### SECTION II

#### Amount of Shipping Entering the District During the Year

The trade of the Port during 1954 has again shown an upward trend. Foreign-going arrivals increased by approximately 14 per cent. and the amount of foreign and coast-wise imports rose by about 22,000 tons.

Year	Foreign-going Arrivals	Tonnage of Imports Foreign & Coastwise
1952	1,020	4,991,093
1953	1,247	5,473,223
<b>1954</b>	<b>1,421</b>	<b>5,495,291</b>

The progressive increase in the trading activities of the Port of Bristol, which has been an encouraging feature of its history, particularly since the last war, is of a somewhat greater significance in 1954, for, during the year there has been very little Government control of cargoes and allocation of ports for vessels.

With the abolition of restrictions and import quotas, trading is becoming more normal, and there is every indication that the Bristol group of docks, with its modern machinery and warehousing facilities for the handling and storage of cargoes, is well able to satisfy the increasing demands of shipping and trading interests. Constructional developments and the installation of up-to-date equipment are continually in progress, and confirm the view that each year Bristol is fulfilling a more and more important rôle in the nation's maritime trade.

TABLE B

## Amount of Shipping Entering the District During the Year

Ships from	Number*	Tonnage*	Number inspected		No. of ships reported as having or having had during the voyage infectious disease on board **
			by the Medical Officer of Health	by the Sanitary Inspector	
Foreign ports	1,421	3,627,665	825	1,453	11
Coastwise	4,925	1,517,833	—	734	—
Total	6,346	5,145,498	825	2,187	11

\* Figures supplied by courtesy of the Port of Bristol Authority. (Discrepancy between number of vessels shown as arriving and number inspected in foreign section arises from differing classification of " Foreign " and " Coastwise " vessels as applied by the Port of Bristol Authority and the Bristol Port Health Authority).

\*\* Excluding vessels having venereal disease on board.

## SECTION III

## Character of Shipping and Trade During the Year

Table C (a)—Passenger Traffic

		Seaport	Airport
Inwards	British	2,511	395
	Alien	255	317
Outwards	British	1,733	327
	Alien	116	175

Table C (b)—Cargo Traffic

## Principal Imports

<i>Commodities</i>	<i>Tons</i>
Coal .. .. .	48,168
Cocoa .. .. .	32,643
Feeding stuffs for livestock .. .. .	291,545
Fertilisers .. .. .	195,497
Flour and other cereal products .. .. .	19,095
Fruit :	
Bananas .. .. .	49,739
Citrus .. .. .	10,149
Dried .. .. .	10,001
Other kinds .. .. .	16,483



Table C (b)—*contd.*

Grain :								
Barley	..	..	..	..	..	..	..	202,311
Maize	..	..	..	..	..	..	..	159,269
Wheat	..	..	..	..	..	..	..	325,391
Other kinds	..	..	..	..	..	..	..	32,854
Metals :								
Aluminium	..	..	..	..	..	..	..	60,532
Copper	..	..	..	..	..	..	..	13,995
Iron and steel	..	..	..	..	..	..	..	42,041
Other kinds	..	..	..	..	..	..	..	25,759
Molasses	..	..	..	..	..	..	..	59,788
Oilseeds and oilnuts	..	..	..	..	..	..	..	24,473
Ores	..	..	..	..	..	..	..	147,595
Paper	..	..	..	..	..	..	..	32,304
Petroleum :								
Spirit	..	..	..	..	..	..	..	301,632
Other kinds	..	..	..	..	..	..	..	405,468
Provisions :								
Butter	..	..	..	..	..	..	..	23,039
Cheese	..	..	..	..	..	..	..	13,310
Lard	..	..	..	..	..	..	..	3,500
Meat : bacon and ham	..	..	..	..	..	..	..	1,868
„ canned	..	..	..	..	..	..	..	4,325
„ frozen	..	..	..	..	..	..	..	41,240
Other kinds	..	..	..	..	..	..	..	49
Sugar	..	..	..	..	..	..	..	41,570
Tea	..	..	..	..	..	..	..	7,597
Timber	..	..	..	..	..	..	..	162,026
Tobacco	..	..	..	..	..	..	..	38,689
Wines and spirits	..	..	..	..	..	..	..	8,593
Woodpulp	..	..	..	..	..	..	..	109,299
Other goods	..	..	..	..	..	..	..	79,309
Total Foreign Imports								3,041,146

**Principal Exports**

	<i>Commodities</i>							<i>Tons</i>
Buildings, prefabricated	..	..	..	..	..	..	..	356
Carbon black	..	..	..	..	..	..	..	511
Cement	..	..	..	..	..	..	..	17
Chemicals	..	..	..	..	..	..	..	1,603
Clay	..	..	..	..	..	..	..	10,970
Cocoa	..	..	..	..	..	..	..	665
Coke	..	..	..	..	..	..	..	2,838
Iron and steel	..	..	..	..	..	..	..	7,659
Motor vehicles and parts	..	..	..	..	..	..	..	9,473
Painters' colours	..	..	..	..	..	..	..	538
Paper	..	..	..	..	..	..	..	314
Petroleum	..	..	..	..	..	..	..	15,161
Strontia	..	..	..	..	..	..	..	1,671
Other goods	..	..	..	..	..	..	..	20,952
Total Foreign Exports								72,728

*Note.*—Figures supplied by courtesy of Port of Bristol Authority.

**Table C (c)—Principal Ports from which Ships arrive**

<i>Country</i>	<i>Ports</i>
Algeria .. ..	Algiers, Mostaganem.
Argentina .. ..	Buenos Aires, Rosario.
Australia .. ..	Adelaide, Freemantle, Geelong, Hobart, Melbourne, Port Kembla, Port Pirie, Sydney.
Belgian Congo .. ..	Matadi.
Belgium .. ..	Antwerp, Ghent.
Bermudas Is. .. ..	
British North Borneo .. ..	Rejanz.
British West Indies .. ..	Bowden, Kingstown, Montego Bay, Oracabessa, Port Antonio, St. Kitts, Trinidad.
Burma .. ..	Akyab, Rangoon.
Canada .. ..	Botwood, Halifax, Montreal, New Westminster, Port Alberni, Port Alfred, Port Churchill, Quebec, St. John, Three Rivers, Vancouver.
Canary Is. .. ..	Madeira.
Ceylon .. ..	Colombo.
Chile .. ..	Coronel, Tocopilla.
China .. ..	Dairen, Taku.
Cuba .. ..	Cienfuegos, Havana.
Cyprus .. ..	Famagusta, Limassol.
Cyrenaica .. ..	Tripoli.
Denmark .. ..	Copenhagen, Frederikssund.
Dominica .. ..	Roseau.
Egypt .. ..	Alexandria.
Eire .. ..	Cork, Dublin, Limerick.
Finland .. ..	Abo, Hamina, Hango, Haukipudas, Helsingfors, Kotka.
France .. ..	Bayonne, Bordeaux, Deauville, Dieppe, Dunkirk, Havre, La Rochelle, L'Orient, Marseilles, Nantes, Nemours, Rouen, Tonnay-Charente.
French Cameroons .. ..	Tiko Is.
French Equatorial Africa .. ..	Dakar, Grand Bassam, Libreville, Monrovia, Port Gentil.
Gambia .. ..	Bathurst.
Germany .. ..	Bremen, Bremerhaven, Emden, Friedrichshaven, Hamburg, Harborg, Stettin, Wismar.
Gold Coast .. ..	Accra, Takoradi.
Greece .. ..	Patras, Zante.
Hong Kong .. ..	
Indian Union .. ..	Bombay, Calcutta, Vizagapatam.
Indonesia .. ..	Sourabaya.
Iran .. ..	Basra.
Iraq .. ..	Fau.
Israel .. ..	Haifa.
Italy .. ..	Genoa, Livorno, Napoli, Palermo.
Japan .. ..	Kobe, Yokohama.
Jugoslavia .. ..	Rijeka, Split.
Kenya .. ..	Mombassa.
Kuwait .. ..	Mena al Ahmadi.

Table C(c)—*cont.*

<i>Country</i>	<i>Ports.</i>
Malaya .. ..	Port Swetenham, Singapore.
Mexico .. ..	Corral, Tampico.
Morocco .. ..	Casablanca, Saffi, Sousse.
Mozambique .. ..	Beira, Mozambique.
Netherlands .. ..	Amsterdam, Delzyl, Dordrecht, Rotterdam.
Netherlands West Indies .. ..	Aruba, Curacao.
New Zealand .. ..	Auckland, Bluff, Port Chalmers, Lyttleton, New Plymouth, Otaru, Napier, Timaru, Wellington.
Nigeria .. ..	Lagos, Port Harcourt, Sapele.
Norway .. ..	Bergen, Oslo, Risør, Skein, Stavanger, Tvedestrand.
Pakistan .. ..	Chittagong, Karachi.
Panama .. ..	
Persian Gulf .. ..	Bahrein Is., Ras Tanura.
Peru .. ..	Callao.
Portugal .. ..	Lisbon, Oporto.
Puerto Rico .. ..	San Juan.
Rumania.. ..	Constanza
Siam .. ..	Kohsichang.
Sierre Leone .. ..	Freetown.
South West Africa .. ..	Walvis Bay.
Spain .. ..	Barcelona, Cadiz, Huelva, Seville, Valencia.
Sudan .. ..	Port Sudan.
Sweden .. ..	Gelfe, Gothenburg, Iggesund, Kramfors, Malmö, Nyhammar, Stockholm, Sundsvall.
Syria .. ..	Lattakia.
Tanganyika .. ..	Dar es Salaam, Zanzibar.
Tunisia .. ..	Sfax, Tunis.
Turkey .. ..	Iskanderun, Istanbul.
Uruguay .. ..	Puerto la Cruz, Montevideo.
Union of South Africa .. ..	Cape Town, Durban, East London.
Union of Soviet Socialist Republics .. ..	Igarka, Kherson, Novorossisk, Odessa.
United States of America .. ..	Baltimore, Baton Rouge, Baytown, Beaumont, Boston, Freeport, Galveston, Houston, Los Angeles, New Orleans, New York, Norfolk, Philadelphia, Port Sulphur, San Francisco, Texas City, Wilmington.
Venezuela .. ..	Punta Cardon.

## SECTION IV

### Inland Barge Traffic

Number of craft entering during the year :	3,532
Tonnage of craft entering during the year :	293,237
Places served by the traffic :	
Banbury	Newport
Barry	Sharpness
Bridgwater	Stourport
Cardiff	Swansea
Frampton	Upton
Gloucester	Worcester
Lydney	

## SECTION V

### Water Supply

No changes have occurred during the year.

## SECTION VI

### Public Health (Ships) Regulations, 1952

No changes have occurred. Arrangements for the routine boarding and clearance of all arriving vessels have proceeded satisfactorily. No breach of these regulations has been reported during the year.

## SECTION VII

### Smallpox

(1) Cases and suspected cases of smallpox occurring within the district are sent to the smallpox wing of the Ham Green Infectious Diseases Hospital, Pill, near Bristol.

(2) Ambulance facilities are provided by the Ambulance Service of the Bristol Corporation, which is administered by the Medical Officer of Health. The vaccinal state of the ambulance crew is satisfactory and subject to continuous review.

(3) Two consultants are available in the event of smallpox.

(i) Dr. J. Macrae, Medical Superintendent, Ham Green Hospital, Pill, Near Bristol, and

(ii) Dr. Richard Clarke, O.B.E., Harley Lodge, Clifton Down, Bristol, 8.

(4) Facilities for the laboratory diagnosis of smallpox are available in conjunction with the Preventive Medicine Laboratories (University of Bristol).



## SECTION VIII

### Venereal Disease

Full information concerning the situation and giving the hours during which the medical officer is in attendance at the venereal disease centres at Avonmouth and Bristol Docks, is given to the crew of every vessel entering the port. This information is contained in handbills (including a sketch map) which are freely distributed to each ship. When indicated, in-patient treatment under the direction of the venereal diseases consultant, is available at the Frenchay General Hospital.

The arrangement whereby the Port Medical Officer who is usually the first to ascertain venereal conditions, acts in an additional capacity as medical officer to the venereal disease centre, has continued.

<i>Year</i>	<i>Syphilis</i>	<i>Chancroid</i>	<i>Gonorrhoea</i>	<i>Non. V.D.</i>	<i>Total</i>
1950	62	13	226	217	518
1951	39	17	180	284	520
1952	29	20	196	223	468
1953	26	6	142	283	457
1954	30	20	112	280	442

The above table relates to seamen treated at the Avonmouth Centre. It will be seen that the total attendance has shown a slight and gradual decline during the past five years. The incidence of venereal infection has fallen by 50 per cent. over this period. On the other hand, there has been a substantial increase in the number of cases classified as non-venereal: this group, to a very large extent, comprises cases which have received treatment abroad or at sea, and who on arrival are referred for tests of cure. (Some of these men were treated, very often unskilfully, by untrained persons on board ship; numerous examples of the indiscriminate use and abuse at sea of permitted antibiotics are known to the department). However, the general trend is satisfactory.

## SECTION IX

### Cases of Notifiable and Other Infectious Diseases on Ships

With the exception of the case detailed below, Table D is self-explanatory, no other incidents of outstanding interest having occurred during the year.

#### *Case of Suspected Smallpox*

The m.v. *Collangatta* arrived at Avonmouth ex Tiko, West Africa on the morning tide. The vessel had been at anchor in Walton Bay since Sunday 24th October, having been diverted from Liverpool.

The patient, a Swedish seaman, aged 39, was examined in the evening of 2nd November, at the surgery of the Medical Officer to the Shipping Federation, by your medical officer in consultation with Dr. J. Macrae. He had sickened 31st October and noticed his rash later in the day. His temperature was 101.4°F. There was a profuse papulovesicular rash confined mainly to the trunk, and affecting the extremities only sparsely. There was little evidence of "cropping". His throat and tonsils were acutely inflamed.

He was conveyed to Ham Green Hospital by ambulance. Smears for direct examination, precipitation and cultural tests were taken.

### *History*

The vessel left Stockholm 20th September. All members of the crew were successfully vaccinated 18th September.

30th September, arrived and left Las Palmas. This port was not at the time on the Infected Ports Lists. The crew did not go ashore.

9th October, arrived Tiko (not at that time infected with smallpox). Several members of the crew went ashore for varying periods, including the patient.

11th October, left Tiko, bound for Liverpool.

18th/20th October. Two members of the crew occupying a cabin near that of the patient sickened with headache and vomiting and were off duty for two days. Both bore evidence of recent successful vaccination, and were well on arrival here.

### *Action Taken*

The patient was hospitalized, and disinfection of his accommodation and personal effects was carried out. All members of the crew were re-examined and daily inspections were carried out. As four passengers had been disembarked by tender on the 24th October telegrams were dispatched to the Medical Officers of Health concerned, giving relevant details.

### *Final Diagnosis*

Smallpox was finally excluded and the patient was deemed to have been suffering from Stevens Johnson's Syndrome.

**TABLE D**

### **Cases of Notifiable and Other Infectious Diseases on Ships**

Disease	Category and number of cases during the year							Number of ships concerned
	Cases landed from ships from foreign ports		Cases which have occurred on ships from foreign ports but have been disposed of before arrival		Cases landed from other ships		Total	
	Pass.	Crew	Pass.	Crew	Pass.	Crew		
Malaria	—	1	—	1	—	—	2	2
Pneumonia	—	3	—	—	—	—	3	3
Pulm. T.B. . .	1	2	—	—	—	—	3	2
Erysipelas . .	—	1	—	—	—	—	1	1
Measles . .	1	—	—	—	—	—	1	1
Chicken Pox	1	—	—	—	—	—	1	1
Ant. pol. M.	2	—	—	—	—	—	2	1
Totals	5	7	—	1	—	—	13	11

## SECTION X

### Observations on the Occurrence of Malaria in Ships

Two cases only were ascertained during the year ; details are given below.

17th January.

m.v. "*Stella Marina*" ex West Africa. A member of the crew sickened at sea and on arrival at Avonmouth was found to be suffering from malaria. The vessel had loaded fruit at Tiko 5th—7th January, this being her only port of call. The patient recovered in hospital here.

17th February.

s.s. "*Junecrest*" ex West Africa. This vessel was trading around the West African coast and had called at Sapele 30th December—8th January. She docked at Lagos 23rd January and it was at this port that an Arab member of the crew reported sick with malaria. He was treated with paludrine and recovered on board ship.

## SECTION XI

### Measures taken against Ships Infected with or Suspected for Plague

- (1). All vessels from infected or suspected ports are required to attach efficient rat guards to the mooring ropes.
- (2). Suitable lengths of tarred hessian are wrapped around moorings, outside the leads, when the standard types of rat guards are not available.

No ships infected with or suspected for plague arrived during the year but a total of 92 vessels arrived from plague-infested ports. These were dealt with accordingly.

## SECTION XII

### Measures Against Rodents in Ships from Foreign Ports

#### (I) Procedure for Inspection of Ships for Rats

##### (a) *Foreign Going*

As outlined in previous annual reports, detailed attention is given to the repression of rats in ships, and measures are taken to prevent them from gaining access to the shore. Inspection and trapping is a routine daily procedure, and the results of action taken are checked every day for comparison with the report of the first inspection carried out. By this method it is possible, after long experience, to estimate with remarkable accuracy, the number of rats on each ship. The degrees of infestation are classified as (1) very slight, (2) slight, (3) moderate, and (4) pronounced. During the year 92 ships were discovered with varying evidence of rat activity. Of these, 64 were considered to have very slight rat activity on board. In remaining 28, as the figures in the table below show, 231 rats were recovered by trapping, or after fumigation.

Sixteen of the ships referred to in the table were carrying part cargo for other ports in this country, and two proceeded to the Continent. In each case the appropriate Health Authority was informed of the conditions discovered here.

In addition, two ships were found to have moderate to heavy mice infestations. One was fumigated here, 47 mice being killed; the other, after completing discharge at another port, was disinfested in a similar manner, 36 mice being recovered.

No. of rats per ship	No. of ships	Total rats recovered
1— 5	14	26
6—10	6	49
11—15	2	25
16—20	4	77
21—25	1	24
26—30	1	30
Totals	28	231

It has been pointed out in previous years—and is again illustrated in the above table—that the majority of rats are recovered from a comparatively few ships with pronounced infestation.

(b) *Coastwise* (Vessels trading only between ports in the British Isles)

These ships have been boarded regularly for the purpose of inspecting the Rodent Control Certificate and in order to examine for evidence of rodents. No action was required in any of the craft inspected. A total of 25 Rodent Control Certificates were issued during the year.

(c) *Inland Water Craft* (Movement confined to harbours and inland waters)

Most of these vessels trade regularly to the port and a large number of them are bulk oil carriers. Periodical inspections show that they are kept in a rat free condition. Rats were found in dumb barges used for the storage of animal feeding stuffs and in the floating grain elevators. In each case the owners complied with a recommendation that the appropriate measures of repression be carried out, a total of 52 rats being destroyed in this way.

(d) *General Remarks*

Reference was made in last year's Annual Report to the use of the fluid poison bait sodium fluoroacetate for the deratting of ships. Its use for this purpose is increasing. A greater number of ships, both in this country and the U.S.A. are being treated with this poison prior to the issue of deratting certificates.

Evidence of rats was discovered in some of the ships deratted in this manner; but this does not necessarily mean that the treatment had been unsuccessful for, in each case, it had been carried out some while previously, another cargo having been loaded in the interim period.

In the meantime it may be wiser to await the results of further experience of this method before deciding whether poison baits of this nature are as effective and practicable as hydrogen cyanide gas for the extermination of the ships' rats.



**(2) Arrangements for the Bacteriological or Pathological Examination of Rodents, with Special Reference to Rodent Plague, including the number of Rodents sent for Examination During the Year**

A routine proportion of all rats recovered is sent for examination for evidence of *B. Pestis* to the University of Bristol Laboratories, Canynge Hall, Clifton. During the year 164 were sent for examination; none was found to be infected with plague.

**(3) Arrangements in the District for Deratting Ships, the Methods used, and if done by a Commercial Contractor, the Name of the Contractor**

The deratting of ships is carried out by commercial contractors who use hydrogen cyanide gas for the purpose. The undermentioned firms undertook the work at the port during 1954: -

Messrs. London Fumigation Co. Ltd., London.

Messrs. Fumigation Services Ltd., London.

Messrs. Associated Fumigators Ltd., London.

Messrs. Western Scaling & Painting Co. Ltd., Cardiff.

**(4) Progress in the Rat-proofing of Ships**

The abolition of wood sheathing in insulated cargo holds of new ships, and the use of a minimum of wood in other ship fittings has eliminated a great deal of harbourage for rats.

In relatively few instances has it been necessary to request that rat proofing be carried out. In each case this request was made in order to prevent rats from reaching the ships' food stores. The work involved: (a) fitting fine meshed gauze wire netting on the underside of the hinged gratings which cover deck openings into the storerooms, and (b) the use of sheet metal to close gaps caused by pipelines passing through the bulkheads.

**TABLE E**

**Rodents Destroyed During the Year in Ships from Foreign Ports**

Category	Number
Black rats .. ..	231
Brown rats .. ..	—
Species not known ..	—
Sent for examination ..	164
Infected with plague ..	—

**TABLE F**

**Deratting Certificates and Deratting Exemption Certificates Issued During the Year for Ships from Foreign Ports**

No. of Deratting Certificates issued				Number of Deratting Exemption Certificates issued	Total Certificates issued
After fumigation with H.C.N.	Other fumigant	After trapping	After poisoning	Total	
9	—	—	—	9	162

## SECTION XIII

### Inspection of Ships for Nuisances

Nature of defects and inspections	No. of inspections carried out	Notices served			No. of defects found	Result of serving notices	
		Statutory	In-formal	Forward (PHA's/ MOT)		No. of defects	
						Remedied	Not remedied
Original construction	3,242	—	43	26	25	3	22
Structural wear and tear					213	115	98
Dirt, vermin, etc.					316	269	47
Totals	3,242	—	43	26	554	387	167

In reviewing this aspect of port health work it is pleasing to be able to report that the number of ships found to have "dirt and vermin" defects was substantially less than in previous years. This encouraging sign is due partly to the fact that a considerable number of the ships inspected were of modern construction, the accommodation being arranged and fitted so as to eliminate insect harbourages and dirt accumulations, wherever possible, thereby making it easy to promote and maintain improved standards of hygiene. Greater attention is now also given to the control of insect infestation. A very effective insecticidal lacquer (referred to in last year's report) is being used by many shipping firms. A careful follow-up in these cases has shown that the vessels concerned have remained insect free for successive voyages, after one application of this lacquer.

Bug infestations, which were at one time of common occurrence in ships, are rarely seen these days. Yet, during the last quarter of the year pronounced bug infestation was found in eight ships—five of which were British. The cabins involved were, in each instance, occupied by coloured seamen and the circumstances indicated that the infestation, which appeared to be recent in origin, had been brought to the ship, probably in the men's gear, from some shore establishment. Nothing had been done in any of the ships to destroy the bugs, yet each ship carried a supply of useful insecticide. It was obvious that the routine inspection of quarters if carried out, was of a very superficial nature.

Appropriate measures were taken in respect of each ship and, in the case of two of them, satisfactory reports were obtained from other ports at the end of the following voyage.

Of the 213 "wear and tear" defects ascertained, 115 were remedied here. The remaining 98 received attention at other British ports.

A total of 25 "original construction" defects was found in eleven ships, one of which was of foreign nationality. Three of the defects, relating to lack of rat proofing of provision storeroom bulkheads, were remedied under our supervision. The remainder, which involved sub-standard conditions in the accommodation, or considerable structural deterioration as a result of corrosion, etc., were reported to the Ministry

of Transport Surveyor for appropriate action. No formal action was taken, but 42 informal notices concerning defects requiring attention were sent to owners during the year ; and 20, referring to defects not remedied at this port, were sent to other Port Health Authorities.

### Hygiene of Crews' Spaces : Vessels Trading Coastwise and Foreign

	British		Foreign		Totals
	s.s.	m.v.	s.s.	m.v.	
Number of revisits to vessels in dock by Inspectors .. ..	1,247	1,011	399	585	3,242
Number of vessels reported defective .. .. .	120	46	17	6	189
Number of vessels—defects remedied .. .. .	90	42	12	6	150

Defects	No. of ships in-spected	Original construction		Wear and tear		Dirt and vermin	
		No. of ships	No. of defects	No. of ships	No. of defects	No. of ships	No. of defects
British s.s.	620	8	21	42	179	100	208
m.v.	721	2	3	12	30	36	72
Foreign s.s.	203	—	—	3	4	16	29
m.v.	593	1	1	—	—	5	7
Totals	2,137	11	25	57	213	157	316

Defects	Number of defects			Number defects reported by For'd Notices, etc., to :			Number of ships	
	Found	Rem'd	Not rem'd	Other PHA's	M.O.T. Surv'r	Owner Master	Bri-tish	For-ign
Original construction	25	3	22	11	15	19	10	1
Wear & tear	213	115	98	81	37	136	54	3
Dirt, vermin and other causes ..	316	269	47	19	1	50	136	22
Totals ..	554	387	167	111	53	205	200	26

### *Smoke Nuisance*

Visits were made to 26 ships during the year to request abatement of smoke nuisances. All of them were burning oil fuel and except in one instance, the ease with which the smoke emission was cut down indicated that insufficient attention was being given to the control of the oil and air supplies in the furnaces.

The exception referred to above was in connection with a ship causing serious and recurrent smoke nuisance as a result of faulty pipe connections and the low temperature of oil used. The amount of black smoke billowing from the funnel was such as to interfere with work at an adjacent flour mill. A notice was served on the Master and although this brought about some improvement the necessary repairs were not carried out prior to the vessel's departure.

## **SECTION XIV**

### **Public Health (Shell-Fish) Regulations 1934 and 1948**

No changes have occurred during the year.

## **SECTION XV**

### **Medical Inspection of Aliens**

Effect has been given to the changes introduced by the Aliens Order, 1953. This came into operation on the 18th April, 1954, and replaced the Aliens Order of 1920.



**Medical Inspection of Aliens**  
**Annual Return by the Medical Inspector of Aliens for year ended 31st December, 1954**

	SEAPORT				AIRPORT			
	TOTAL	Number inspected by the Medical Inspector	Number sub-jected to examination by the Medical Inspector	Number of certificates issued	TOTAL	Number inspected by the Medical Inspector	Number sub-jected to examination by the Medical Inspector	Number of certificates issued
(a) Total number of aliens landing at the Port ..	255	255	—	—	317	317	—	—
(b) Aliens refused permission to land by Immigration Officer ..	—	—	—	—	—	—	—	—
(c) Total aliens arriving at the Port .. ..	255	255	—	—	317	317	—	—

Total number of vessels/aircraft carrying alien passengers :	Seaport 113	Airport 108	Outwards	Seaport 63	Airport 89
Number of vessels/aircraft dealt with by the Medical Inspector :	113	108		—	—

## SECTION XVI

**Arrangements for the Burial on Shore of Persons who have Died  
on Board Ship from Infectious Disease**

No changes have occurred during the year.

## SECTION XVII

**Other Matters****(I) Measures against Rodents on Docks, Quays, etc.**

Measures which include the laying of poison baits and trapping have been continuously maintained throughout the year and the dock areas in general, are in a satisfactory condition. When, from time to time, signs of increased rat activity are discovered prompt treatment is carried out by our operators.

In the case of premises and areas not treated by the Corporation, the owners are requested to take appropriate action without delay.

The number of rats caught on docks, quays, warehouses, etc., during 1954, and in the previous two years, is shown in the accompanying table.

Category	1954	1953	1952
Black rats .. ..	143	102	175
Brown rats .. ..	100	71	377
Species not known ..	—	—	—
Sent for examination	62	45	96
Infected with plague	—	—	—
Mice .. .. .	53	46	73

**(2) Dock Sanitation***(a) Factories, Workplaces and Canteens*

The construction of a new locomotive repair depot, and the provision of up-to-date messrooms, washplaces, and W.C. accommodation for the staff employed at this depot has just been completed. In addition, a new bonded warehouse with suitable sanitary accommodation, and two messrooms, with similar facilities for outside staff, have been provided.

Factories and workplaces were inspected periodically; all minor omissions or irregularities relating to Factories Act requirements received prompt attention, and were rectified without recourse to formal action.

Frequent visits of inspection have been made to public and private canteens within the dock area. Fruitful discussions have taken place with the managements of these premises on the importance of maintaining a high standard of hygiene in all matters relating to the storage, handling and serving of foods, and the cleansing of utensils. Again, the various defects and unsatisfactory conditions found were remedied by informal procedure.

(b) *Public Conveniences*

The complaints received during the year relating to public conveniences have arisen mainly in respect of choked drainage and broken fittings. The Port of Bristol Authority has given immediate and full co-operation and these nuisances have been abated.

(c) *Refuse Collection*

During the year a total of 4,692 lorry loads (7,500 tons approximately) of general refuse, etc., was collected and disposed of by the Transport and Cleansing Department. Included in this total were 311 loads of kitchen waste, salvaged for use in the manufacture of pig food by the Corporation.

**(3) Imported Foods**

Of approximately three million tons of imports discharged at the port during 1954, no less than 803,392 represented a varied supply of foods intended for human consumption. All food shipments were inspected and action under the Imported Food Regulations was taken in the following cases :—

- (a). 6,600 lambs and 160 tons offal, detained because of "store-stale" condition. These, after full examination and when necessary re-conditioning, were released for manufacturing purposes.
- (b). 900 lambs and 157 sheep (part of two consignments), detained because of dirty carcasses and wrappings. After reconditioning and re-clothing they were distributed to the trade.
- (c). 1,200 boxes of dried fruit, damaged by sea water and showing evidence of fermentation. All were sorted and when necessary repacked prior to release.
- (d). 560 bags of cocoa beans, mould contaminated. These were detained but later delivered for cocoa-fat extraction.
- (e). Seventeen tons of sugar, sea water damaged. This was released after arrangements for refining had been made.
- (f). Two consignments of tomatoes comprising 350 cases, found to have a high percentage of blown tins. The whole were rejected and later re-exported to the country of origin.
- (g). 250 cases of canned corned beef, with a high percentage of blown tins. These were surrendered for destruction under the supervision of the food inspector.
- (h). 24,000 tins of canned fruit, badly damaged during severe weather conditions on voyage. A complete examination was carried out and 2,300 tins were condemned and destroyed.

In addition to the above, small quantities of other commodities were dealt with from time to time during the year and in every instance they were rendered fit for human food prior to release.

The banana trade of the port has continued at a high level, and, as is unavoidable when dealing with large quantities of perishable foods, a proportion of the fruit was, on arrival, over-ripe for distribution through the normal trade channels. As in past years, Messrs. Elders & Fyffes Ltd., released this and as a result of their generosity a total of 14,470 lb. of fruit was allocated as shown in the accompanying table.

Dr. Barnardo's Homes .. ..	740 lb.
Corporation Day Nurseries .. ..	1,220 „
Corporation Children's Committee .. ..	1,690 „
Muller's Homes for Children .. ..	1,990 „
Children's Hospital Group .. ..	1,740 „
Frenchay Hospital Group .. ..	1,965 „
Ham Green Hospital Group .. ..	1,755 „
Hortham & Brentry Group .. ..	1,480 „
Southmead Hospital Group .. ..	1,890 „
	<hr/>
	14,470 „
	<hr/>

The Ministry of Food circulated information to Port Health Authorities in January to the effect that oranges (sweet and bitter varieties) from Spain were treated prior to export with thiourea, a chemical that inhibited mould growth. As this substance was to some extent harmful if ingested, Port Authorities were requested to take appropriate action under the Preservatives in Food Regulations.

Samples were taken of all the various brands imported in Bristol, and slight traces only were discovered on the rind of six of these. No action was deemed necessary.

Information was later received indicating that the practice of dipping the citrus fruit in this substance has been discontinued.

## Food Inspection

### Meats (Condemned)

Description	Decomposition and mould				Brine stain				Contamination and taint				Total			
	T.	C.	Q.	lb.	T.	C.	Q.	lb.	T.	C.	Q.	lb.	T.	C.	Q.	lb.
Beef ..			1	3 04				—				—		1	3	04
Lamb ..	1	1	0	00				16	3	1	13		1	4	2	1
Mutton ..			1	0 06				—				—		1	0	06
Pork ..				—				—				—				—
Offal ..			2	04				20				—		2		24
Total ..	1	4	1	14				1 08	3	1	13		1	8	0	7



**Canned Goods (Condemned)**

Description	Reason for condemnation	Quantity (tins)	T. C.	Q. lb.
Canned fruit	Blown, crushed, rust holed, burst and pierced tins .. .. .	11,421	8 3	1 17
Canned meats	Blown, burst, crushed and burst and pierced tins ..	406	12	- 26
Canned fish	Blown, rust holed, pierced, crushed and burst ..	1,046	4	2 25
Jams	Crushed and burst ..	15	1	- 03
Tomatoes	Blown, burst, pierced, rust holed and crushed ..	900	11	3 10
Vegetables	Blown, burst, pierced, rust holed and crushed ..	313	5	2 10
Fruit juice	Crushed and burst ..	27	0	1 07
Milk	Rust, holed and pierced	21		21
Total	—	14,149	9 18	2 07

**Miscellaneous Foods (Condemned)**

Description	Reason for condemnation	T. C.	Q. lb.
Chocolate	Grossly contaminated		12
Dried fruit	Fermented, mouldy, grossly contaminated	16 5	3 02
Dried vegetables	Insect infested, perished	1	1 12
Flour	Weevil infested, mouldy and contaminated	1 1	3 14
Honey	Grossly contaminated		16
Lard	Grossly contaminated	1	1 03
Margarine	Grossly contaminated		3 03
Oatmeal	Insect infested and damp	1	2 20
Potatoes	Decomposed	3	0 0
Rice	Weevil, mould and wet	19	0 26
Tea	Mouldy and grossly contaminated	15	3 19
Tomatoes	Decomposed	6	3 0
Wheat	Decomposed and oil contaminated	60 18	0 20
Total	—	80 16	0 7

**Food Inspection :**  
**Particulars of Foods Detained for Re-exportation**  
**or Reconditioning at Local or other Food Depots**

Description of food	Reason for detention	Tons (approx.)
Lambs	Decomposition, contamination, mould	117
Mutton	" " "	10
Sugar	Contamination	17
Cereals	Insect infestation, rancidity	26
Flour	Wet damage, mould	57
Dried fruit	Wet damage, fermentation, mould, con- tamination	77
Canned fruit	Rusty, blown, crushed tins	131
Cocoa beans	Mould-contamination	36
Butter	Brine stain, dirt contamination	5
Canned meats	Rusty tins	8
Tea	Wet damage and mould contamination	149
Offal and rabbits	Brine stained	3
Canned tomatoes	Blown tins	15
Total	—	651

**Drinking Water Samples from Ships**

Name of Ship	Result
Etivebank	Satisfactory
Bristol City	"
"	"
Salton	"
Portway	"
Camerton	"
New York City	Unsatisfactory
" "	"
Marsdale	Satisfactory
B.P.I.	"
Fidentia	Unsatisfactory

**Food Inspection : Samples of Imported Foodstuffs taken 1954 and  
sent for Examination by the Analyst or Bacteriologist**

No. of samples	Description of commodity	Country of origin	Exam. for*	Result
1	Apricots (Dried) ..	Iran	P.S.	Satisfactory
6	" (Canned) ..	Australia	M.	"
6	" " ..	S. Africa	M.	"
1	" " ..	U.S.A.	M.	"
1	Bacon (Sliced) ..	Eire	S	"
1	Blackcurrant (Canned)	France	M.	"
7	Cherries (Canned) ..	Italy	M.	"
4	Corned beef (Canned)	Argentina	M.B.	"
2	" " "	S. Africa	M.B.	"
1	" " "	France	M.B.	"
2	" " with cereal (Canned)	S. Africa	M.B.	"
2	" " " " "	France	M.B.	"
3	Clementinos (Fresh) ..	Spain	Th.	No trace of thiourea
1	Currants (Dried) ..	Greece	P.	Satisfactory
4	Crab meat (Canned) ..	Japan	M.S.	"
1	Dried fruit salad ..	Germany	P.S.	"
3	Fruit salad (Canned) ..	Home produce	P.S.	"
2	Grapes (Fresh) ..	Spain	Th.	No Trace
1	Goldenberries (Canned)	S. Africa	M.	Satisfactory
3	Lemons (Fresh) ..	Cyprus	Th.	No trace
3	Luncheon meat (Canned)	France	M.P.	Satisfactory
1	" " " "	Denmark	M.P.	"
2	" " " "	Holland	M.P.	"
3	Mandarins (Fresh) ..	Spain	Th.	No trace
8	" (Canned) ..	Japan	M.S.	Satisfactory
5	Meat paste (Jars) ..	Holland	P.S.	"
10	Minced beef loaf (Canned)	Australia	M.P.	"
152	Oranges (Fresh) ..	Israel	Th.	No trace
15	" " ..	Cyprus	"	"
24	" " ..	Spain	"	Traces of thiourea found in parcel of only six samples
1	Orange juice (Canned) ..	S. Africa	M.	Satisfactory
2	Ox liver braised (Canned)	Eire	M.S.	"
6	Peaches (Canned) ..	S. Africa	M.S.	"
1	" " ..	U.S.A.	M.S.	"
1	Pears " ..	S. Africa	M.	"
1	" " ..	Australia	M.	"
14	Pineapples sliced (Canned)	Malaya	M.	"
4	Pineapples sliced " "	S. Africa	M.	"
1	" " " "	Australia	M.	"
6	" Pieces " "	"	M.	"

\*Key. Examined for :

B Bacterial contam.

M Metallic contam.

P Preservatives

S Soundness or purity

Th. Thiourea

No. of Samples	Description of commodity	Country of origin	Exam. for*	Result
6	Pineapples pieces (Canned)	S. Africa	M.	Satisfactory
1	" " "	Kenya	M.	"
1	" " "	Malaya	M.	"
2	" crushed "	Kenya	M.	"
2	" juices "	Australia	M.	"
11	Pilchards (Canned) ..	S. Africa	M.S.	"
1	Prunes " "	U.S.A.	M.	"
2	" dried ..	U.S.A.	B.	Sea water contamination
2	Pimientos (Canned) ..	Spain	M.S.	Satisfactory
2	Peas " "	N. Zealand	M.P.	"
2	Rice .. ..	Italy	S.	"
4	Rock lobster (Canned)	S. Africa	M.S.	"
1	Raspberries " "	Belgium	M.	"
5	Raisins (Dried) .. ..	S. Africa	S.	High acid reaction
14	Sardines (Canned)	Portugal	M.S.	Satisfactory
4	Sausages pork " "	S. Africa	M.P.	"
2	" " "	Home produce	S.	"
2	Stewed steak " "	Eire	M.S.	"
1	Sultanas dried .. ..	Greece	P.	"
1	" " " "	Turkey	P.	"
3	Strawberries (Canned)	Holland	M.	"
4	Salmon " "	Japan	M.S.	"
2	" " "	Holland	M.S.	"
1	Soup (Tomato) " "	Australia	M.	"
58	Tomatoes " "	Italy	M.B.	8 samples unsatisfactory
4	" " "	Spain	M.	50 " satisfactory
2	Tomato purée " "	Italy	M.	Satisfactory
1	" " "	S. Africa	M.	"
1	" juice " "	"	M.	"
6	Tongues " "	France	M.B.	Unsatisfactory
2	" " "	N. Zealand	M.B.	"
2	" " "	Australia	M.B.	"
1	" " "	Argentina	S.	"
1	Tea .. ..	India	S.	"
4	Wheat .. ..	Canada	S.	"

\*Key Examined for :

B. Bacterial contam.

M. Metallic contam.

P. Preservatives

S. Soundness or purity



## A QUARTER OF A CENTURY OF PORT HEALTH\*

Dr. R. H. Parry  
(*Medical Officer of Health*)

Although the subject—"A Quarter of a Century of Port Health"—is not a suitable one to be condensed into a brief paper at least one thing is certain—Hull, where the idea of an Association of Port Sanitary Authorities was first conceived, is the most suitable place wherein to pause and review its achievements.

It was in 1928, that I was appointed to the post of Chief Assistant Medical Officer to the City and Port of Bristol. My chief was Dr. R. A. Askins, who two years later became Chief Medical Officer to Southern Rhodesia. I became Medical Officer of Health in 1930.

One of the duties allotted to me was to organise the Port Health Service, which had been supervised previously by Dr. D. S. Davies, the Medical Officer of Health, assisted by a part-time medical officer. My experience of port health work, therefore, has been mostly confined to Bristol.

I was soon initiated into the mysteries of the Port Sanitary Association (as it was then called), for in May, 1928, it held its first annual meeting outside of London at Bristol. Our two stalwarts were Alderman Maggs, Chairman of the Health Committee, and Alderman J. E. Jones, Vice-Chairman and Chairman of the Port Sanitary Committee.

Then I was also privileged to meet the great pioneers of this Association—Alderman Askew of Hull and Sir Allen Daley, then Port Medical Officer: Alderman Dr. Dunlop of Glasgow and Sir Alexander McGregor: Mr. Platts; Dr. Willoughby of London; Mrs. Foster Welch of Southampton; Dr. Howard Jones of Newport, and many other distinguished members of this Association.

In many ways the Port of Bristol was an excellent place wherein to learn about the problems of port and, indeed, of world health. It consists of three docks, separated by as many as seven miles of river. The old docks of Bristol on the River Avon are in the centre of the City. A ship has about five hours in which to catch the tide from the Bristol Channel and sail up. There is, therefore, no chance of boarding until it has docked. When it has docked, it is as easy to-day for a sailor to jump down and have a drink in the pub, on the quay side as it was in the days of Daniel Defoe, when he met "Robinson Crusoe" on such an expedition in a city public house.

It was not easy to institute new procedure in regard to the inspection of ships, and more difficult to deal with ships' crews in such an old historic city.

Portishead Docks were not so much used, but when they were, it involved a journey backwards and forwards of 17 miles for the medical officer and the port inspector.

Avonmouth is, of course, a large modern port by itself at the mouth of the two rivers—Avon and Severn.

In those early days the main responsibility for the safety of health precautions rested on two great sanitary inspectors—the one trained in Hull—Mr. Scorer, and the other, Mr. Gould, a master mariner who also knew all the mysteries of the sea and ships.

\*Read at the Annual Conference of the Association of Sea and Air Port Health Authorities, at Hull, June, 1954.

Every port has its own geographical peculiarities and these have a considerable influence upon routine port health procedure. The Port of Bristol is no exception.

At the entrance locks the tidal "rise and fall" is the second highest in the world, being exceeded only by that in the Bay of Fundy, between New Brunswick and Nova Scotia. (An interesting result of this is that on the occasion of the spring tide there occurs the phenomenon of the "Severn Bore", a solid wall of water which rushes upwards and along the lower reaches of the Severn from the point of maximum funneling of this river). In consequence, vessels of any size may only enter or leave the docks during a period of two-and-a-half hours on either side of high water, and in view of the fact that the nearest safe anchorage is in the Barry Roads, some twenty miles down the Bristol Channel, the boarding of these ships is only practicable within the entrance locks. We are therefore denied that very effective barrier to infection available in most ports—a convenient boarding station and an intervening expanse of water. But this is not the only difficulty, for in the case of the Bristol City Docks it is necessary to allow ships from infected ports to steam up into the heart of a population of nearly half-a-million people before inspection and clearance can be carried out.

In those days many of the small ships were not equipped with wireless and we had to depend on Walton Bay signalling station to send along messages regarding any sickness on board to the Port when a ship was coming up the Channel.

Twenty-five years ago tall masts of ships moored at the City Centre were a familiar sight. This, indeed, was a romantic and unique feature of the Port. But to one, charged amongst other things, with the duty of preventing the importation of infection from abroad, the spectacle was perhaps not so inspiring.

Many of these vessels reached Bristol, after a short voyage perhaps of eight to ten days' duration, from one of the Mediterranean or North African ports infected with small-pox. Assuming the date of departure from one of these ports to be the last possible date of exposure to infection, there were still four to six days of the incubation period of this disease yet to expire. We were never allowed to forget this danger, which is seen in a more advanced form to-day as a result of the speed of air travel.

In those early days, it was the desire of Docks Authorities that no ship which was even "suspected", much less infected, should be brought into any of the docks, and they resisted strongly the allocation of berths in the different docks where infected or suspected ships could be isolated and dealt with, although, in fact, that was the only way to deal with a ship and its crew under infected conditions. The fact that the Bristol Docks had been bought with the rates and were owned by the City Council, and administered by one of its committees—perhaps the only one so owned in the country—did not make it any easier for the Port Sanitary Committee to persuade the Docks Committee of the importance of facilities in case the worst happened. We know to-day that divided loyalties often add to our difficulties in arriving at a decision. However, we were very fortunate in having the ever ready assistance of Colonel P. G. Stock of the Ministry of Health to help us. An agreement was reached in 1932, and berths were allotted to us in Avonmouth Docks if we should meet with these conditions of "suspected" or "infected" ships.

It is interesting to note the epidemiological state of the City in 1928 and in 1952. In 1928 we were in the throes of an epidemic of smallpox

—the *Variola minor* type—although for many who suffered from the disease it was no mild complaint.

<i>Disease</i>		1928	1952
Smallpox ( <i>V. minor</i> )	.. ..	51	—
Diphtheria	.. ..	599 (1,200 the following year)	—
Typhoid	.. ..	52	2
Pulmonary T.B.	.. ..	671	480
Scarlet fever	.. ..	1,211	866

We were much more likely to meet cases of these diseases on the ships than we are to-day. But we certainly had our difficulties.

Not the least of the trials of a Port Medical Officer in that period between the 1926 International Sanitary Convention and 1933 (when our efforts of control were finally upheld by the provisions of the Port Sanitary Regulations) was the intolerant and obstructive attitude adopted by some masters of small cargo vessels who, they claimed, had never before been subjected to such gross interference. Then we had too the piratical methods of boarding often adopted by unauthorized persons.

At the present time we are still occasionally required to give clearance to a ship which arrives from one of these infected ports after a very short sea voyage. After the issue of pratique we have no control over these ships. However, that is no justification for not keeping such ships under observation.

Some years ago we introduced a procedure which involved the routine boarding each day, by an inspector, of all ships from infected ports. These daily visits are continued until the expiry of the incubation period of the disease concerned, a *signed* chit being secured (by persuasion!) from the master or chief officer to the effect that, on the day in question, no illness which might be of an infectious nature had been reported. This procedure is valuable, although we have never picked up one of the quarantinable diseases in this way, but it may well have been otherwise, and the method has certainly led to the early ascertainment of diseases such as anterior poliomyelitis, virulent influenza, typhoid and malaria—to prompt hospitalization, and probably to a considerable narrowing of the channels of spread of these communicable diseases.

It is the duty of a Port Health Officer to take nothing for granted. Somehow a signed chit seems more reliable than the officer's word! About twelve years ago, one of my inspectors boarded a ship which had been in dock a few days and was informed by the Chief Officer "No sickness". A moment later an ambulance drew up. The driver boarded the ship. "I've called for the typhoid case", he said. This chit system was introduced forthwith and has at least the merit that the Chief Officer has to think before he signs.

In the late 'twenties and the early 'thirties, the entry of a vessel reporting cases of cholera, plague or smallpox, disposed of prior to arrival, was not a rare occurrence. In each instance the prescribed measures were taken before pratique was granted, and were apparently effective. During the years 1952 and 1953 no such event was recorded.

In World War II, Avonmouth was one of the major ports of disembarkation for hospital ships. These began to arrive in numbers



when the theatre of war was extended to the Mediterranean zone, many of them coming from ports infected with smallpox and typhus. They were docked during day and night tides and imposed a considerable strain on a department very considerably depleted by recruitment to the Services. We were fortunate, for although on occasions it became necessary to carry out mass vaccinations before disembarkation could be contemplated, none of the quarantinable diseases was discovered during this period.

One interesting matter which tended not to create "satisfaction" with those in high places, was the matter of lymph for vaccination. For some amazing reason it has never been possible for the Medical Officer of Health to be allowed to store government lymph unless he happens to be a public vaccinator and then only in small quantities. Yet it could be kept by regional medical officers of the Ministry of Health. I have the Preventive Medicine Laboratory of the University in my charge and yet I had to send by road to Newport to obtain lymph on one occasion because that is where the nearest Ministry supply is kept.

We were also confronted with problems associated with the mass evacuation of civilians from Malta and Gibraltar during the early stages of the war. The arrival of these evacuee ships came to the Port of Bristol and involved the inspection, cleansing and, when necessary, the de-lousing of large numbers of steerage passengers. On one occasion a ship brought to the port a group of 300 inmates from a mental hospital in Gibraltar. They were housed in improvised accommodation below decks. The filth and squalor was indescribable. De-lousing on this occasion was a major problem (these were the days before the introduction of D.D.T.), but, providentially, at this stage "Lethane 384 Special" had become available to us.

When one large warehouse storing tinned goods was damaged in November, 1940, salvage was delayed for some time and there was considerable infestation by flies early in the following spring. With all such entomological problems, we could always rely upon the assistance and advice of Dr. H. J. H. Kearns, of the University of Bristol Horticultural Research Station. His advice was sought on this occasion, and on May 22, 1941, he visited the site and recommended the use of "Lethane 384 Special", which he had found of great value in the control of insect pests in his horticultural work. He recommended its use as a 10 per cent solution in odourless paraffin, to be sprayed in a mist by a mechanical compressor unit which he loaned from his department. This was remarkably effective and its use then and during the summer of 1941 was invaluable in destroying flies and preventing fly infestation.

At the same time, the problem of verminous heads in children being evacuated from the City was uppermost in our minds. Several batches of children had been sent away from Bristol and an undertaking had been given that all these would be sent out in a cleanly state. We were faced with the difficult task of cleansing verminous heads. In spite of hard work by health visitors and auxiliary nurses, taking the usual measures, re-infection was common and our efforts to eliminate head lice not completely successful. Dr. Kearns gave us his experience that after considerable use of Lethane there was no ill effect on his sensitive skin; we therefore decided to try it on the heads of the school children in our health centres, at first as a 5 per cent solution of "Lethane 384 Special" (which is in itself a 40 per cent solution) and later, as this weaker solution caused no irritation, a stronger (40 per cent) solution was used and found to be effective in destroying both



lice and nits. Later, all children to be evacuated were treated in this way with excellent results. As far as is known, this was the first occasion on which Lethane was used for this purpose.

Of the special precautionary measures taken, may be mentioned the arrangements for the formation of typhus teams. These consisted of doctors, nurses, sanitary inspectors, ambulance drivers and men attendants to form disinfection parties, all specially trained in their respective parts in the work of the team. This disinfection team was always ready to operate and once again Lethane was the preparation selected for use both as a preventive and disinfecting agent.

These were spectacular days in the history of the Port Health Department. Not the least vivid of my memories is a fine afternoon in the summer of 1940 when vigorous but unsuccessful measures of control had to be carried out to deal with an outbreak of mass hysteria occurring on one of these evacuee ships when, coincident with the arrival of this ship, the Port of Avonmouth was subjected to a low-level daylight attack by the Luftwaffe. After a relatively peaceful voyage from Malta it seemed to these evacuees that they had indeed left the "frying-pan" for the "fire".

Perhaps the greatest change has resulted from the appearance of what Sir George Newman would describe as "humanism" in the consideration of the housing of our seamen. This "humanism" has grown and influenced considerably human relationship since the dark days of the Industrial Revolution, and, in spite of world wars, or maybe because of wars, with the revaluation of human life.

It is not necessary to recall the appalling conditions which existed on some of our cargo vessels in the "twenties". It will be sufficient to describe these as being primitive and perilous. The provisions of the Merchant Shipping Act of 1895, which required a minimum of 72 cubic feet and 12 square feet of floor space per man, were rarely exceeded in the ships which survived World War I.

The Merchant Shipping Act of 1906 made provision for 120 cubic feet, with 15 square feet of floor space per man. Messroom and washplace capacities were to be included for the purpose of these requirements and although it was recognized that messrooms and washplaces were really essential requirements, it was not until some years later that it became an established practice to provide them.

The first real opportunity to make some progressive effort towards the improvement of living conditions for our seamen occurred during the period of the first World War, when there was need to build large numbers of new ships to replace those sunk by enemy action. But the efforts made were unimaginative and disappointing. In these new vessels the seamen's quarters were located aft, below decks, and the atmosphere of gloom and squalor still persisted. Provision for water supply, food, beds, bedding and other reasonable necessities differed but little from those prevailing in the old ships. The only real progress was the provision of messroom and washing space, and in housing the men in a part of the ship which was somewhat less exposed to the seas in rough weather and which could be reached with a little less risk of being overcome by the elements.

In the early 'thirties some of our best known shipping companies pioneered with excellent results in this field of naval architecture. The most important step made at that time was to locate the seamen's accommodation amidships and to bring about some degree of segregation by providing three or four berth cabins, the messrooms and washplaces being so placed that the galley and water supply were

conveniently accessible. More modern methods of heating and ventilating the quarters were introduced. All of these, together with a constant supply of artificial lighting by electricity contributed towards greater comfort and contentment.

The enormous shipping losses which occurred during the second World War called again for the construction of new ships and naval architects had another opportunity to bring in new ideas. The "Empire", "Park" and "Lake" classes of ships were constructed and the accommodation in these show many new features that certainly merit the term "improvement". Three or four-berth cabins were provided with a considerable increase in floor space and headroom; larger port lights, giving better natural lighting; much improved ventilation, heating and artificial lighting; spacious messrooms with food lockers, wash-up sinks, and hot and cold running water from gravity tanks.

Later in the war the pre-fabricated "Liberty" class of ship was made available to our merchant fleet. These presented certain innovations in planning and layout which, although not new (a few shipping companies had already embodied these features in their ships prior to the war) set a pattern which has since been improved upon by most ship-owners in the design for accommodation in vessels built to these specifications since 1946. In particular, the arrangement whereby all the ship's personnel are housed above deck in the amidships section has everything to commend it. The centralization of all facilities and amenities for preparing and eating food, sleeping, leisure and the other necessities of life, is undoubtedly conducive to comfort, well-being and the improved maintenance of hygiene.

Where, in addition to this improved layout, modern fittings and refinements are provided, even to the inclusion of separate cabins for each rating, a cafeteria and a smoke-room for the use of the men, it can truly be said that very great progress has been made. The hygienic and cultural advantage of the single-berth cabin are considerable. The men prefer them. The privacy available to the individual encourages him to pay greater attention to the cleanliness of a berth which is exclusively his own. This in turn has a favourable influence on his habits, his personal cleanliness, and therefore upon his health. Furthermore this privacy confers upon the men advantages not obtainable in three or four-berth cabins; the seclusion provides opportunities for relaxation not otherwise obtainable; the indulgence in hobbies, such as painting, for example; and even, as I have seen, for private study.

In the past it was commonplace to hear it said that the planning of crew accommodation was just an afterthought, the first-class accommodation being allotted to the cargo. To-day, on the other hand, we know that the shipowners, shipbuilders and the Ministry of Transport give very considerable attention to this matter.

The Merchant Shipping Regulations came into force on the 1st January, 1954. These Regulations broadly speaking, conform to the standards agreed at the Seattle International Labour Conference in 1946, adopted on revision at a similar conference in Geneva in 1949. Most of the requirements laid down in these Regulations have been included in the majority of the ships built during and after the war period.

Our seamen are to-day being provided with living conditions which compare very favourably with the best that exists in ships of other nations. This must surely, in due course, attract the right type of man to take up seafaring as a career. It is therefore not too much to hope that the men in their turn will appreciate the benefits of these



improvements and will respond, with advantage to themselves and to the shipowners, to the influence of this environment.

If it were possible to produce the minute books of this Association they would demonstrate clearly that much of this change is due to the activities of this Association.

One of our primary tasks is the prevention of the importation of rat plague. Every precaution must be taken if this is to be carried into effect. Twenty-five years ago a sufficient proportion of the rats recovered from ships were regularly submitted to the bacteriologist for the purpose of detecting the presence of plague. To-day, fifty per cent of the rats so recovered are examined. On no occasion during these years have we recovered plague bacilli from those submitted for examination, in spite of the fact that a hundred or more vessels from plague-infected ports have entered the Port of Bristol annually. Perhaps this fact best illustrates the point which I made earlier when I stated that the work of a port health department is very largely negative in character. Yet one has always in mind the experience of Bristol during the first World War in 1916, when two cases of bubonic plague appeared as out-patients at the Bristol Royal Infirmary. Fortunately they were recognised and immediate steps taken to isolate a rag and bone merchant's premises in the centre of the City where the men worked. Plague rats were recovered and strangely enough—reminiscent of the Great Fire of London, which terminated the Great Plague, the rag and bone premises also caught fire and that was the end of that. Such an incident leaves an indelible impression on port health service and is traditionally handed down, so we take no risks. The last occasion that an isolated case of clinical plague occurred on a vessel in Bristol was in 1932.

The gradual elimination of the ship rat has been achieved with striking success. During the past twenty-five years, except for a brief period during World War II, there has been a steady decline in the number of rats recovered from vessels. At one time they were recovered by the thousand, each year: now they are numbered only by the hundred, and thorough searching methods carried out in ship after ship frequently reveal a complete freedom from rats. In the year 1953, which was a peak year so far as shipping at the port was concerned, only 144 rats were recovered from vessels in dock as a result of fumigation and other methods of repression.

Progress in the elimination of rats was slow during the 1930's. The decline has been most rapid during the past ten years and although the influence of the 1926 International Sanitary Convention has been a leading one, two other factors must receive mention. One of these—which has been referred to as the creation of a housing shortage for the rat—is the attention which has been given in recent years to the rat proofing of vessels and the elimination of rat harbourage. The other is the effect of the use by the Ministry of Food of large amounts of hydrogen cyanide, sometimes irrespective of the validity of the ship's deratting certificate, in order to eliminate insect pests from food-carrying ships. But whichever of these factors is mainly responsible the fact remains that the decline has been a tremendous one. So far as my figures indicate, the ship rat has been decimated during the past quarter century, and if present trends are maintained the use of modern rodenticides such as "1080" will hasten the extinction of the black rat as a ship pest and with it the danger of the re-introduction of bubonic plague into this country.

We look back with amusement to the 1930's when we were studying

the "Electric Rat Guard". This apparatus, containing a "live wire" of 250-500 volts, was attached to the mooring ropes. A rat could only reach the quayside by brushing past the live wire. Experiments which we conducted in Bristol with this apparatus merely proved that in most cases the effect of the "contact" was to stun the rat—which was also, as a rule, projected through the air with some force during the final stages of its journey to the quay. Of course, very shortly afterwards it recovered and was little the worse for its experience!

During recent years the Association has given its attention to the question of outbreaks of gastro-enteritis on passenger liners. My records show that, in general cargo ships, incidents of this kind are occurring with less frequency. I can recall no "explosive" outbreak of food poisoning on vessels arriving at Bristol during the last quarter of a century. On several occasions, however, when ships have reached the port we have obtained a history of recurrent sporadic cases of diarrhoea and vomiting amongst members of the crew, the usual picture being that two or three of the crew are reported to be sick on arrival and, commonly, that the infection has persisted for some time, one or two going down with the condition, which is usually of short duration, every few days.

I refer, of course, to the smaller general cargo ships; the type of vessel which carries no surgeon, and in which food for officers and members of the crew alike is prepared at a common source in the ship's galley. An adequate history is always difficult to obtain. A port medical officer is left very much to his own resources under these circumstances and can do little more than deal with the situation as he finds it. Acutely ill members of the crew are sent to hospital and routine investigations are made; these sometimes throw suspicion upon faulty methods of food handling. Occasionally some defect in the ship's water supply is found to be the causative factor. More often than not investigation has revealed that one of the organisms of the salmonella group is involved.

A few years ago a vessel entered the Avonmouth Docks with two officers and two members of the crew acutely ill with symptoms of gastro-enteritis. An inspection of the water closets, some of which were faulty and would not flush, gave one the impression that more than the four reported cases were similarly, if less acutely, affected. The weather was hot. Flies in large numbers infested the ship; an uninterrupted swarm of them seemed to extend from the toilet accommodation along an alley-way to the galley where cold "made-up" food was exposed. Few powers of deductive reasoning were needed on this occasion to arrive at a conclusion. But the amazing fact remains that the Master—whether from ignorance or perversity—refused to agree that the flies could contribute to the spread of this infection. "You always get a lot of flies in a ship in weather like this", he said. Even to-day this attitude of mind is too common in our country. We are not a really clean nation.

This Association has recommended that training in the principles of "hygienic food handling" should be incorporated in the syllabus of instruction in Merchant Navy catering schools. This is a worthwhile beginning. But is it going far enough? It is always useless unless a good example can be set from the top, and the ship's master, whose duty it is to inspect his ship regularly and who is armed with the necessary powers of discipline, is the person who should be thoroughly ingrained with the principles of marine hygiene. My port health staff feel strongly that this subject should be introduced into his curriculum at a time when he is studying for his Second Mate's "ticket" and that



the course of training should be analagous to that which he is required to undergo in first-aid. If this could be achieved and all ship's officers henceforth rendered hygiene conscious, it would result in the eradication of many of the glaring hygienic defects so commonly ascertained to-day

A review such as this would be incomplete without some reference to the incidence of the venereal diseases in the Merchant Service.

Between the two World Wars these diseases ranked high in the list of ailments to which the seafarer was especially prone and during this period there was no significant variation in the morbidity rates from year to year. A sharp rise occurred during the war and a peak was reached in 1945, but the incidence has fallen dramatically since then and is probably lower now than at any time in the present century.

In many seamen's clinics primary syphilis has become a clinical rarity. Cases of gonorrhoea are reduced to less than half of the pre-war figures. In consequence there has occurred a relative increase in the number of conditions classified as non-venereal.

A feature of great significance which is now observable in the case records at any seamen's clinic or dispensary is the readiness and the promptness with which the sailor of to-day attends for routine tests following exposure to infection abroad. He is responding well to measures of health education at sea and ashore.

In the late 'twenties and the early 'thirties one became accustomed to the sight of a florid or crippling case of syphilis brought forward for examination during the course of a routine ship inspection. As a deterrent to the younger members of the ship's crew these cases were sometimes put to good use. Seamen with tertiary lesions of skin and bone were not difficult to find in those days. But cases of this kind are now very uncommon. May it not be that these diseases, and especially syphilis, are much milder in type than they were twenty or more years ago?

It is probable that some of the seafarers in these "bad old days" represented a residue of untreated syphilitics whose infection dated from the 1914-18 period. Lesions of skin and bone were always the most spectacular of the tertiary group, and probably insufficient attention was given to the recognition of corresponding cases of internal syphilis—aortitis and neuro-syphilis for example.

It has been suggested to me that, quite apart from a gradual mitigation throughout the centuries, some diminution of the external manifestations of syphilis has occurred since the standardization of treatment with the arsphenamines was introduced in 1923 or 1924.

In recent years a certain section of the mercantile marine would appear to have lost its fear of the consequences of venereal infection. All that seems necessary now, when they become infected, is to run along to the Chief Steward for another injection of penicillin! In my medical student days, pregnancy and venereal disease were the great policemen of morality. To-day—I wonder!

During World War II tablets of M. & B. 760, in tins of sixty for a course of treatment, were issued to the merchant navy. To a very large extent this countered the increase in the number of cases of gonorrhoea that were occurring; but to permit the use of this substance in such quantities by unqualified persons seemed at the time a drastic measure.

Now, however, caution having apparently been thrown further into the background, quantities of penicillin may be carried in a ship's medicine chest, to be used according to instructions contained in the Ship Captains' Medical Guide.

I have no doubt that in the majority of instances the use of antibiotics as an emergency at sea have been necessary and worthwhile. On the other hand, the use of penicillin at sea sometimes as a sort of panacea, sometimes indiscriminately, and practically always under non-aseptic conditions is not without its dangers.

I have no doubt that the use of this substance on a wide scale has influenced the transmissibility of these diseases. On the other hand, it is a fact that cases have occurred in which its effective use in the treatment of gonorrhoea at sea has masked and rendered clinically unrecognisable a co-existing early syphilitic infection, which is thereby rendered asymptomatic (but nevertheless probably capable of transmission to another person at some later stage).

Several of these cases have been ascertained during the past year or two. But a large number of them must have escaped recognition. To what extent is this likely to swell the number of congenital syphilitics born each year—or will this be compensated for by adequate ante-natal supervision?

I am told that it may be one of the explanations for the increase in the number of asymptomatic cases of syphilis, now being discovered at ante-natal clinics. Some of these, it is true, are congenital cases: but many of them are cases of acquired syphilis, the offspring being frequently illegitimate, the putative father unknown.

The following case is worthy of record: A seaman was examined at the clinic for seamen at Bristol. There was no history of a primary lesion. There were present peri-anal condylomata lata, from which spirochaetes were recovered. Six months previously he had been given three injections of penicillin for a sore throat. The question arises—was his sore throat syphilitic or was it pyogenic? Possibly it was syphilitic. The history is very much in keeping with that of a penicillin failure.

There is sufficient evidence available that penicillin is being used indiscriminately at sea. The dangers of over-dosage as well as under-dosage are well known, and there is need for the strictest control in its administration.

The incidence of pulmonary tuberculosis in the mercantile marine has always been a high one. Reference has frequently been made to this fact in papers read at previous Annual Conferences and I do not propose to deal with this question in any detail. As under shore conditions, the disease is spread by conditions of overcrowding, exposure, fatigues the like, but the source is an infectious case.

Twenty-five years ago reports of deaths at sea from tuberculosis were commonly received, and one was tempted to wonder, at the time, whether the chests of these unfortunate men had, in fact, been looked at during the medical examination conducted prior to signing articles, or was it the custom to recommend the "sailor's life" to a person with a "weak chest"?

The following case was reported to me in 1945, and may be characteristic, in my opinion, of the state of affairs which has led up to this high incidence:

A chief steward sought the advice of one of my boarding medical officers when his ship arrived. He complained that he had not felt well for several years, with occasional chest pains, a troublesome productive cough, and increasing dyspnoea during the past year. The voyage had lasted for ten months. Two young assistant stewards, previously very fit youths, had been hospitalized abroad and later invalided home. Both were confirmed cases of pulmonary tuberculosis.

The patient was examined in his cabin—a room almost devoid of any form of ventilation, reeking with tobacco smoke and the fumes of stale alcohol. There was evidence of extensive fibrosis with cavitation in both lungs. At a later stage this was confirmed radiologically and he was found to be an “open” case of pulmonary tuberculosis.

Here without doubt was a chronic spreader of tuberculosis. Surely the modern approach to this problem is the mass radiography of crews before recruitment to a ship, and the exclusion of these chronic carriers, for if this state of affairs exists to any great extent, and is allowed to continue, it will offset many of the efforts made to improve living conditions afloat. I believe that with the co-operation of the shipping companies and the Shipping Federation the problem is capable of speedy solution, and that coupled with the improved standards of crew accommodation we are now witnessing another scourge would be removed.

You may be interested in the new approach made by the Bristol City Council to the whole problem of tuberculosis. They have appointed a full-time medical officer as tuberculosis epidemiologist—to follow up all cases, to find out, if possible, where the disease came from and if the case has infected anyone, and to do his best to get it isolated. Is not tuberculosis an infectious disease? Why then do we ignore this fact and concentrate on treatment? It is a preventable disease and should be prevented.

Under present conditions we may at any time expect the re-introduction of smallpox into this country from time to time. Smallpox has not lost much of its ubiquity: and dealing as we are with a population in which there is growing up an increasing number of susceptibles, the control of this disease at our ports is more vital than ever.

In clearing a ship which has arrived from, or called at, a smallpox infected port, there is nothing quite so heartening as the sight of a batch of certificates testifying to the recent successful re-vaccination of every man on board. But why is this the exception rather than the rule? Surely this could be achieved by all shipping companies rather than just the few.

On boarding a ship the Maritime Declaration of Health provides us with a reasonable preliminary safeguard against the introduction of infection, and the temptation for an inspector or medical officer to accept it without question is a strong one when the answers to all of the health questions are in the negative. This is especially true during a busy “tide”, particularly when the voyage from an infected port of call has been in excess of the incubation period of the disease concerned.

Where smallpox is concerned we must take no risks and the experience of Glasgow and other places reminds us that this cannot be left to our clinical colleagues.

I recollect that on one occasion, one of my medical officers boarded a vessel from an infected port and was handed a clear Declaration duly signed by the Master. The crew was mustered for inspection. As a result of a careful scrutiny of the crew list two men were found to be missing. They were later discovered lying in their bunks, both of them with high temperatures.

On this Declaration the Master had declared that “to the best of his knowledge and belief” the answers to the questions contained therein were true and correct. His plea was that the men had sickened only that morning and that they had not themselves reported the fact to the officer on duty.

On other occasions we have discovered unreported illness as a result of the inability of the person, so delegated, to take a temperature,



and although this is the exception rather than the rule, it is a matter to which we must give serious thought. It is true that the Master is advised, in the absence of a surgeon, to regard "fever . . . persisting for several days" as ground for suspecting the existence of disease of an infectious nature.

The only satisfactory answer to this seems to me to be that shipping companies should employ an appropriately qualified sick-berth attendant. This was the rule during the last war in American ships, the attendants being designated "Pharmacist's Mates". Before appointment these men were given an intensive course in the principles of first-aid, hygiene, the elements of medical and surgical nursing, including fevers. In the smaller ships they combined these duties with those of a ship's "writer". If this scheme was adopted it would meet some of the criticisms I have made.

In this general survey I have followed many of the highways and some of the byeways of port health work and am conscious that in doing so I have trodden some very well-worn paths. Some of the topics I have dealt with have been examined separately and with much greater detail in previous papers and for this reason I have refrained from producing a quantity of statistical data.

## THE WILLIAM BUDD HEALTH CENTRE

### SECOND ANNUAL REPORT

(1953-1954)

Dr. R. C. Wofinden  
(*Deputy Medical Officer of Health*)

The year under review has been one of steady progress and consolidation.

Dr. Norman Cook resigned from the Centre for personal reasons at the end of September, 1953. The vacancy thus created has not been filled in order to provide an opportunity for exploring the possibilities of using the vacant suite as part of a diagnostic (X-ray and pathological) centre. Such a centre would be used by all general medical practitioners practising in the area. Negotiations have been pursued, with Committee sanction at officer level, with the Regional Hospital Board and the Ministry of Health. At the moment of writing it is not possible to report much in the way of positive progress.

Dr. Grace Woods, who has been carrying out Local Authority maternity and child welfare work since the Centre opened, resigned on 3rd July, 1954, in order to pursue a higher medical qualification. She has been replaced by Dr. Alison Craig.

Miss M. M. Davies, the Deputy Sister-in-Charge, resigned her post as from the end of October, 1954. The vacancy has not yet been filled.

Mrs. Rawsthorne (Miss Wood) the Nutritionist resigned on 31st August, 1954, to take up another appointment with Bath Education Authority. This vacancy has not yet been filled.

Mr. Redman, the consulting obstetrician left Bristol in January 1954 to take up another appointment and he has been replaced by Mr. James MacGillivray.



The House Committee would like to record their thanks to all these colleagues who, in the early days, worked so hard and so well to make the Centre a success.

In accordance with the House Committee's recommendations in last year's Annual Report the Centre has functioned during this past year with one nurse and one secretary less than during the first year's working. Staff deficiencies were made good by the employment of evening sessional clinic nurses. While these arrangements have worked quite well the House Committee have been conscious of the added burden thrown on the Sister-in-Charge and her Deputy and of the great difficulties which arise when any of the staff are sick ; in fact, there is no margin at all for sickness and holidays with present staffing arrangements. In consequence the House Committee are not yet satisfied that we have achieved the ideal staffing arrangements for a Centre of this kind and it is possible that new recommendations will be made in the near future.

With the concurrence of the general medical practitioners working in the Centre, Mrs. F. Bodman was appointed in October, 1954, by the Health Committee on a sessional basis as psychiatric social worker to the practitioners. This experiment will be followed with great interest as a possible means of assisting practitioners in dealing with the large volume of cases of mental ill-health we know to exist.

In spite of all these staff changes the health services in the area have functioned in a well co-ordinated manner and the new staff, doubtless catching the spirit of this unique enterprise, have rapidly shaken down as part of the team. Increasingly we hear the unsolicited views of patients attending the Centre which are almost wholly enthusiastic. They now regard it as "all their own".

Arrangements have been made recently for the attendance of medical students at the Centre and also for them to go on home visits with the doctors if they so wish. This will be valuable experience for in no other place is it possible to see the work of all three branches of the health service functioning under one roof.

During the year the Centre proved a continuing source of interest to visitors, of all shades of professional interest, from many different parts of the world and the British Isles.

It is with great pleasure that we record our grateful thanks to Dr. A. G. Phear, a senior Fellow of the Royal College of Physicians and a descendant of Dr. William Budd, for his spontaneous gesture of goodwill in presenting to the Centre a valuable and historic copy of Dr. Budd's book on "Typhoid Fever" (1873). This, together with an illuminated address outlining Dr. Budd's life history, is being preserved in a glass case in the staff room.

## **General Practitioner Work**

### *(a) Patients Registered at the Centre*

On July 31st, 1953, that is one year after the Centre opened, there were 10,368 patients on the doctors' list and on July 31st, 1954, there were 10,806 patients on the roll. It should be realised that during the present year there has been one less G.P. firm (single handed) working in the Centre. His list which was small, was transferred back to his main practise when he gave up his suite. The increase in the number of patients on the roll is therefore relatively small and is largely accounted for by the transfer of patients from a doctor in the area with an overfull list.

(b) *Patient attendances at the Centre*

Table I shows the attendance by each quarter for each general practitioner firm for 1952-53 and 1953-54 :—

**Table I. Attendances by each Quarter for General Practitioners**

Doctor(s)	1st		2nd		3rd		4th		Totals	
	Aug.- Oct. 1953	Aug.- Oct. 1952	Nov.- Jan. 1954	Nov.- Jan. 1953	Feb.- Apr. 1954	Feb.- Apr. 1953	May- July 1954	May- July 1953	1953- 1954	1952- 1953
Dr. Sluglett & Partners ...	3,489	2,735	<b>3,257</b>	3,419	<b>3,537</b>	3,734	<b>3,101</b>	2,699	<b>13,384</b>	12,587
Dr. Forster & Partner ...	445	135	<b>431</b>	412	<b>506</b>	472	<b>385</b>	365	<b>1,767</b>	1,384
Dr. N. Cook ...	174	340	—	591	—	488	—	402	<b>174</b>	1,821
Dr. Saphier & Partners ...	2,165	1,477	<b>2,198</b>	2,054	<b>2,293</b>	2,348	<b>2,016</b>	1,717	<b>8,672</b>	7,596
Dr. O'Dowd ...	1,262	1,092	<b>1,255</b>	1,271	<b>1,318</b>	1,450	<b>1,135</b>	1,109	<b>4,970</b>	4,922
Dr. Carter & Partner ...	1,416	989	<b>1,282</b>	1,222	<b>1,233</b>	1,419	<b>1,129</b>	1,105	<b>5,060</b>	4,735
Totals ...	8,951	6,768	<b>8,423</b>	8,969	<b>8,887</b>	9,911	<b>7,766</b>	7,397	<b>34,027</b>	33,045

(These totalled figures give an average of 8,507 patients seen by G.P.'s at the Centre each quarter during 1953-54 and 8,261 during 1952-53 )

There has been a slight increase in the number of attendances to each practitioner firm during this year which might have been expected owing to the slightly greater number of patients on each list. The period under review has not been notable for any increased prevalence of infectious disease.

(c) *Minor Surgery Treatments*

Table 2 shows the volume of work undertaken by the nursing and medical staff in the minor surgery theatre.

**Table 2. Treatments given for General Practitioners (Quarterly)**

Doctor(s)	1st		2nd		3rd		4th		Totals	
	Aug.- Oct. 1953	Aug.- Oct. 1952	Nov.- Jan. 1954	Nov.- Jan. 1953	Feb.- Apr. 1954	Feb.- Apr. 1953	May- July 1954	May- July 1953	1953- 1954	1952- 1953
Dr. Sluglett & Partners ...	1,094	980	<b>785</b>	1,334	<b>914</b>	1,236	<b>798</b>	948	<b>3,591</b>	4,498
Dr. Forster & Partner ...	84	21	<b>60</b>	80	<b>111</b>	54	<b>44</b>	59	<b>299</b>	214
Dr. N. Cook ...	60	180	—	201	—	153	—	79	<b>60</b>	613
Dr. Saphier & Partners ...	432	666	<b>429</b>	767	<b>663</b>	542	<b>443</b>	380	<b>1,967</b>	2,355
Dr. O'Dowd ...	91	211	<b>109</b>	126	<b>42</b>	57	<b>52</b>	49	<b>294</b>	443
Dr. Carter & Partner ...	399	465	<b>402</b>	469	<b>351</b>	344	<b>287</b>	308	<b>1,439</b>	1,586
Totals ...	2,160	2,523	<b>1,785</b>	2,977	<b>2,081</b>	2,386	<b>1,624</b>	1,823	<b>7,650</b>	9,709
Schools ...	306	—	<b>283</b>	—	<b>266</b>	—	<b>187</b>	—	<b>1,042</b>	—
Casuals ...	96	120	<b>57</b>	48	<b>70</b>	63	<b>88</b>	98	<b>311</b>	329
Full Totals ...	2,562	2,643	<b>2,125</b>	3,025	<b>2,417</b>	2,449	<b>1,899</b>	1,921	<b>9,003</b>	10,038

Quarterly average 2,425 for general practitioner cases 1952-53  
 " " 1,912 " " " 1953-54

It is apparent that the number of treatments has declined during the past year in spite of an increased number of doctor, patient attendances. This is very interesting and is attributed to the efforts of all the staff to train the patients to help themselves a little more. Undoubtedly the time has come when for various trivial conditions the patient is expected to carry out some of his own intermediate treatment such as the application of dressings.

It will also be noted from Table 2 that the number of "casual" patients treated at the Centre is rather less than last year.

(d) *Night calls*

During the period under review there were 643 night calls of all types. This is 100 more than for last year but still remains, on average, under 2 calls a night. It is a matter for regret that in spite of arrangements being made to keep the Centre open all night, patients still persist in invading the privacy of the nursing staff's homes. There is a need for considerable re-education of patients in this matter.

(e) *General practitioner maternity and child welfare work*

The maternity arrangements continue to be one of the most pleasing features of co-operation within the Centre; the hospital specialist, the general medical practitioners and the Local Authority midwives work in complete harmony to the best possible advantage of the patient.

During the year under review the doctors held a total of 50 ante-natal sessions at which they gave ante-natal care to 130 expectant mothers who made 1,421 attendances. Last year there were only 629 attendances at ante-natal clinics. Post-natal attendances were not so good, totalling only 92 for the whole year.

In addition there were 645 attendances at general medical practitioner infant welfare clinics; this compares with 718 attendances last year but it should be remembered that Dr. Norman Cook, who resigned was a general practitioner paediatrician.

(f) *General Practitioner references to Hospital Specialists and Diagnostic Units*

**Table 3. Number of Patients Referred to Hospital Specialists  
(All Doctors)**

Months	Orthopaedic	Paediatric	Physicians	Surgeons	E.N.T.	Gynae:	Total
Jan., 1953— July, 1953	41	36	164	170	32	?	443
Aug., 1953— July, 1954	80	63	445	163	149	88	988

Table 3 shows the number of references to hospital specialists for the last seven months of the first year and for the whole of the second year's working of the Centre. Even after allowing for the discrepancy in the periods covered there has been an overall increase in the number of references and particularly striking increases in references to physicians and E.N.T., surgeons.



Table 4 gives similar information of patients referred to hospital diagnostic units from which it will be apparent that there has been some falling off in numbers. It should be noted, however, that many of the patients in Table 3, particularly those referred to physicians, would not have needed such reference if adequate diagnostic facilities had been available in the Centre.

**TABLE 4. Patients Referred to Hospital Diagnostic Units (All Doctors and Local Authority)**

Months	Chest X-ray	Haemog- lobin	Blood Count	E.S.R. B.S.R.	Urine
Jan., 1953— July, 1953	277	300	72	—	60
Aug., 1953— July, 1954	278	126	72	5	126

### Local Authority Work

#### (a) *Maternity and Child Welfare*

The Local Authority continued to use the premises for maternity and child welfare and school health purposes.

Fifty ante-natal Local Authority doctor sessions were held to see expectant mothers living in the area but whose doctors do not work in the Centre. A total of 640 attendances were made, i.e., an average of 13 patients per session. In addition, the district midwives have held two ante-natal sessions a week at which 634 attendances were made i.e., an average of 7 patients per session.

One hundred and two infant welfare sessions were held when 2,436 infants under one year, 553 children 1-2 years and 567 children 2-5 years were examined and mothers advised, i.e., a total of 3,556 children and an average of nearly 35 per session.

This year 40 sessions were held for mothercraft teaching and relaxation classes. A total of 236 patients attended i.e., an average of 6 per session.

#### (b) *School Health*

Two school medical sessions a week have been held and at 100 sessions 1,934 school children have been seen by the doctor, i.e., an average attendance of 19 per session. It should be noted that school children on the Centre general practitioner lists are looked after by their own doctors and not by the school doctor.

#### (c) *Nutrition clinic*

The nutritionist continued to give valuable advice to practitioners' patients on therapeutic diets and during the year under review 234 attendances were made for this purpose.

### Conclusion

In conclusion we would like to place on record our thanks to our parent Committees—the Health Committee and the Executive Council—and to the staff of the Centre who are helping to make the experiment succeed. We look forward, with keen anticipation, to the provision of further diagnostic facilities.



## PUBLIC HEALTH BACTERIOLOGY

H. R. Cayton

*(Deputy Director of Preventive Medicine Laboratories University of Bristol)*

Bacteriology has long been the handmaid of preventive medicine, if not always the "guiding spirit"; there are some who recommend that she should now be cast off! Infectious disease, though so largely controlled by the application of bacteriological findings in the field of social hygiene, remains a potent and uncontrolled force in individual lives. "If preventable why not prevented" applies equally when the mortality rate is 0.5 per 1,000 as when it is 100 per 1,000 cases. Case finding is usually the first step in prevention.

The work undertaken by the Laboratory has continued to extend, even so our failure to enter the field of virus studies is a notable deficiency in a University centre.

**Dysentery**

The year 1954 has seen a very considerable epidemic. There is no doubt that a great many more cases occurred than were examined, and that the disease was very prevalent, especially in the earlier part of the year.

**Dysentery Organisms isolated, University Laboratory, 1954**

		<i>Bristol C.B. Cases</i>	<i>Others</i>	<i>Total Cases</i>
<i>Sh. sonnei</i> type ..	..	395	65	460
<i>Sh. flexneri</i> type X ..	..	5	—	5
<i>Sh. alkalescens</i> ..	..	1	—	1
All causes ..	..	401	65	466

Investigation of outbreaks is usually confined to nursery schools and these communities have permitted some observations on the effectiveness of streptomycin in this condition. Much more evidence would have been available if all who submit specimens gave the relevant information.

The increasing use of oral streptomycin by practitioners enabled us to observe the appearance of streptomycin-resistant strains in increasing numbers as the epidemic progressed. In one localised outbreak seven out of thirty affected children treated with streptomycin, were excreting resistant strains three days after treatment commenced. The persistence of the carrier state in these conditions may lead to the dissemination of these resistant strains very widely. Nothing is gained by the prolonged treatment of sonne dysentery with this antibiotic, success or failure will be evident within four days.

The outbreak of Flexener dysentery in a colony for mental defectives was effectively controlled by the isolation, and treatment with sulphonamides, of the cases and excretors.

**Salmonella infections (Infective Food poisoning)**

Although the total of incidents brought to our notice was considerably less than last year the number of persons involved was not greatly different. The most notable outbreak involving 65 notified cases is described by Dr. Phillips elsewhere in this volume. The organism responsible was *Salmonella typhimurium*, which organism was recovered

from four of the kitchen staff, one of whom was almost certainly the original source of the infection. There were no permanent ill effects but the illness was much more than a mere indisposition. No secondary cases were discovered, although the organism must have been widely disseminated.

*Salmonella* species 1954  
(Human sources)

<i>S. typhimurium</i>	..	..	..	..	85
<i>S. saint paul</i>	..	..	..	..	8
<i>S. paratyphi</i> B...	..	..	..	..	3
<i>S. thompson</i>	..	..	..	..	2
<i>S. anatum</i>	..	..	..	..	2
<i>S. enteritidis</i> var. <i>jena</i>	..	..	..	..	2
<i>S. enteritidis</i> var. <i>danyysz</i>	..	..	..	..	1
<i>S. senftenberg</i>	..	..	..	..	1
<i>S. typhi</i> (carrier)	..	..	..	..	1
Unidentified ? new species	..	..	..	..	1
					106

Animal strains

<i>Salmonella typhimurium</i>	..	..	..	4
(house mice 2 pigeon 2)				
<i>Salmonella enteritidis jena</i>	..	..	..	1
(mouse)				
„ „ <i>danyisz</i>		..	..	6
(rats)				
„ <i>morbificans bovis</i>	..	..	..	1
(mouse)				
<i>Others (zoo)</i>				
<i>Salmonella stanley</i>	..	..	..	2
				<hr/>
				14

The occurrence of these species among the animals and birds which live in close relationship to man is worth remarking ; as is the occurrence of one human case of enteritis due to the *danyysz* variety of *Sal. enteritidis*. This is used as a rodent virus and is asserted to be harmless to man.

### Infantile Gastro-enteritis

During this year we have examined specimens from children under five years of age for specific sero-types of *E. coli*. These strains have been isolated in about one-twentieth of cases examined. Most of the children suffered from diarrhoea.

*E. coli* 0.55 was isolated from twenty-four children ; twenty-two of these children were in one ward in Ham Green between February and June 1954. The symptoms were mild.

*E. coli* 0.111 has been isolated four times, thrice from children in Ham Green Hospital and once from a nursery child.

*Age Incidence*

Twenty-three of the cases were under one year and all were under three years of age. These strains together with other sero-types once introduced into the children's wards spread with great rapidity and may, and often do, contribute to the morbidity and mortality in young children. The frequency and importance of these strains in home practice has yet to be determined.

**Acute Respiratory Infections**

While work in this section is, in terms of numbers only, a fraction of that of former days, much interest and effort has been given to providing a speedy and efficient service.

The serology of the strains of haemolytic streptococcus has been examined routinely for the last two years and some assessment can now be made of our methods.

One observer (A.J.H.) has analysed the results on 2,000 swabs:—

Total +ve isolations = 421 (21.05 per cent)

64.1 per cent of these "positives" were reported as positive after 18 hours incubation; a further 25.7 per cent were thought to be probably positive, while 10.22 per cent of the positive cases would have been discarded as negative unless the period of observation had been extended for forty-eight hours.

Stated in another form, of the swabs which were regarded as negative at 24 hours some 2.8 per cent were eventually found to be positive.

The distribution of the clinically significant serological groups was further examined with respect to early recognition.

**Distribution of Lancefield Groups (2,000 swabs)**

	Group A	Group C	Group G	Not A, B, C, D or G	Not grouped
Category 1 (—24 hrs. +ve 48 hrs.) ..	33	2	0	2	6
Category 2 (probably +ve 24 hrs. —ve 48 hrs.) ..	84	3	1	14	6
Category 3 (doubtful 24 hrs. — 48 hrs.) ..		154			
Category 4 (+ve 24 hrs.) ..	241	10	2	13	4

Positive swabs excluding those of unknown group = 405. If these are sorted and grouped we have

Category	(1)*	(2)*	(4)*
Group A ..	33	84	241
Not Group A	4	18	25

\* See table overleaf.

$\chi^2@4.94$  for 2 degrees of freedom.

We may therefore say that colonies recognisable after 24 hours are not more likely to be Group A than "not Group A".

## Diphtheria

Yet again we have pleasure in reporting that *C. diphtheriae* has not been found. Of the severe membranous anginas now seen by practitioners and examined by us the majority prove to be cases of infectious *Mononucleosis*. This disease has been recognised frequently during the last twelve months particularly among young adults. The epidemiology of the condition is imperfectly understood.

## Sanitary Bacteriology

### *Milk and Ice-cream*

The reduction in the number of producer-retailers and the concentration of production in hands of the large firms has had a very satisfactory effect on the bacteriological quality of these products, with a coincident reduction in the number of samples collected and tested.

Yet from 341 samples examined for the City and County of Bristol, *Mycobacterium tuberculosis* was found 21 times, and two of these were milks consumed without heat treatment. A further eleven samples (intended for heat treatment) were found to contain living *Brucella* organisms.

The position in the County of Gloucester was similar, 139 samples were examined, three contained live *Mycobacterium tuberculosis* and thirteen *Brucella* organisms.

From the ice-cream retailed in Bristol we examined 261 samples. Of these 224, were classified as Grade 1 and 2 (Ministry of Health Methylene Blue Test) (86 per cent) and 241 (92 per cent) "Good" or "Satisfactory" by the Bristol standard. This is a marked improvement, compared with five years ago.

Difficulty sometimes arises however because the two standards do not always agree (see Table).

Ministry Grade	Bristol Grade	Doubtful, Poor and Very Poor
	Good and Satisfactory	
1 and 2 .. .. (224) 86.8%	83.5%	2.3%
3 and 4 .. .. (37) 13.2% .. ..	8.8%	5.4%



The discrepancy seems to be largely due to variations in the composition of the ice creams tested and compared.

### Mr. E. Guise

In concluding this brief account of the work of the Laboratory during the year 1954, it gives very great pleasure to record our appreciation of the very long, the faithful, and the distinguished service of Mr. E. Guise.

Mr. Guise, first, in the Department of Pathology and later, in the Department of Preventive Medicine served the University of Bristol for 47 years. His many friends wish him long years and every happiness to enjoy them.

## PREVENTIVE MEDICINE DEPARTMENT 1954

### Staff 1954

R. H. Parry, M.D., F.R.C.P., D.P.H., *Professor of Preventive Medicine.*  
R. C. Wofinden, M.D., B.S., D.P.A., D.P.H., *Lecturer in Public Health.*  
S. W. Hinds, M.D., M.R.C.P., M.R.C.S., D.T.M. & H., *Lecturer in Social and Preventive Medicine.*  
G. Herdan, M.Sc., Ph.d., LL.D., *Lecturer in Statistics.*

### Preventive Medicine Laboratories

K. E. Cooper, B.Sc., Ph.D., M.R.C.S., L.R.C.P., *Professor of Bacteriology and Director of Laboratory.*  
H. R. Cayton, M.B., Ch.B., *Lecturer in Bacteriology and Deputy Director of Laboratory.*  
Dorothy Woodman, M.Sc., M.D., B.S., M.R.C.S., L.R.C.P., *Lecturer in Clinical Pathology.*  
C. N. Iland, M.B., Ch.B., D.C.P., Ph.D., *Lecturer in Bacteriology.*  
Anna Mayr-Harting, M.D., Ph.D., *Lecturer in Bacteriology and Bacteriologist.*  
A. H. Linton, Ph.D., *Lecturer in Bacteriology (Veterinary).*  
D. B. Peacock, M.B., Ch.B., *Research Assistant and Serologist.*  
Suzanne K. R. Clarke, M.B., Ch.B., M.R.C.S., L.R.C.P., *Demonstrator in Bacteriology.*  
Patricia Palmer, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*  
Helen A. Dicker, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*  
A. J. Hedges, B.Sc., *Recognised Teacher and Assistant Bacteriologist.*

### Laboratory Examinations

#### Note

Laboratory investigations do not lend themselves to precise classification and the following lists are arbitrary and often inconsistent. For historical reasons they have been included, though no direct comparison is possible with previous years. A direct enumeration of the number of specimens examined would seem to be the simplest form of accountancy, but has the disadvantage of producing a reduction in the "Total Count".

Subject to the usual statistical reservations we give for comparison the Grand Totals for the last three years:—

1952	..	..	55,292
1953	..	..	59,417
1954	..	..	70,883

## Public Health Examinations

*Swabs (nose, throat, ear and mouth)*

Cultures for <i>C. diphtheriae</i>	..	..	..	..	2,453
Cultures for other organisms	..	..	..	..	2,527
Films for Vincent's angina	..	..	..	..	1,569
Lancefield groupings	..	..	..	..	433
Cultures for <i>Staph. aureus</i>	..	..	..	..	375
Antibiotic sensitivity tests	..	..	..	..	142
Whooping cough—pernasal swabs	..	..	..	..	18

*Swabs, others*

Direct microscopy	..	..	..	..	..	..	200
Cultures—							
aerobic	..	..	..	..	..	..	638
anaerobic	..	..	..	..	..	..	68
Virulence tests	..	..	..	..	..	..	12
Antibiotic sensitivity tests	..	..	..	..	..	..	234
<i>Trichomonas vaginalis</i> , microscopy	..	..	..	..	..	..	16
Lancefield groupings	..	..	..	..	..	..	6
Cultures for tubercle bacilli	..	..	..	..	..	..	18
Cultures for <i>C. tetani</i>	..	..	..	..	..	..	2
Laryngeal swabs for tubercle bacilli	..	..	..	..	..	..	26

*Sputum*

## Tuberculosis—

Films	..	..	..	..	..	..	..	2,474
Cultures	..	..	..	..	..	..	..	2,069
Concentration tests	..	..	..	..	..	..	..	2,102
Gram films	..	..	..	..	..	..	..	324
Cultures—aerobic	..	..	..	..	..	..	..	320
Biological tests	..	..	..	..	..	..	..	311
Antibiotic sensitivity	..	..	..	..	..	..	..	72
Fungi	..	..	..	..	..	..	..	3

*Water Analysis*

Complete bacteriological examination	..	..	..	..	442
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*Milk and Dairies*

Tuberculin tested milk	..	..	..	..	..	363
Sterilised milk	..	..	..	..	..	56
Pasteurised milk (schools)	..	..	..	..	..	317
Pasteurised milk (others)	..	..	..	..	..	814
Bottle rinses	..	..	..	..	..	308
Churn rinses	..	..	..	..	..	71
Other raw milks	..	..	..	..	..	37
Plant tests	..	..	..	..	..	142
Cream lines	..	..	..	..	..	590
Ice-cream, Methylene blue, Count and coli	..	..	..	..	..	450
Phosphatase test (Milk)	..	..	..	..	..	2,506
Biological tests, 1 pig	..	..	..	..	..	3
Biological tests, 2 pigs	..	..	..	..	..	408
<i>Brucella abortus</i> (guinea pig, cultures)	..	..	..	..	..	408
"Ice lollies"	..	..	..	..	..	13
Dried milk for coli and count	..	..	..	..	..	14
Miscellaneous tests	..	..	..	..	..	7

*Urine*

Chemical investigations .. .. .	15
Enteric fever—cultures .. .. .	85
Leptospirosis .. .. .	1
Tuberculosis, microscopy .. .. .	2
Biological tests .. .. .	2
Microscopy and cultures .. .. .	25
Antibiotic sensitivity .. .. .	1

*Faeces*

Cultures, dysentery .. .. .	4,553
Cultures for enteric and salmonella .. .. .	4,554
Protozoa, ova, etc. .. .. .	190
Cultures, post mortem tissues .. .. .	33
Specific coli, stool culture .. .. .	346
<i>Clostridium welchii</i> .. .. .	5
Antibiotic sensitivity test .. .. .	77
Phage typing .. .. .	1
Benzedine test .. .. .	2
Tubercle—films, cultures and concentration .. .. .	15

*Blood Examinations*

Films—	
Malaria .. .. .	12
Glandular Fever .. .. .	2
Paul Bunnell .. .. .	10
Widal test .. .. .	81
Brucellosis .. .. .	7
Typhoid, Vi. agglutinations .. .. .	21
Weil Felix .. .. .	3
Hydatid disease .. .. .	4
Influenza .. .. .	1
Culture—Direct .. .. .	5

*Rats*

Plague .. .. .	284
Salmonella .. .. .	284

*Miscellaneous*

Cultures for identification .. .. .	21
Vaccines .. .. .	2
Swabs for chemical examination .. .. .	1
Worms and insects for identification .. .. .	8
Biological, tests for virulence .. .. .	62
Toxoplasmosis .. .. .	17
Antibiotic sensitivity .. .. .	16
Venipunctures .. .. .	16
Anthrax, biological tests and cultures .. .. .	14
Rubber teats for culture .. .. .	5
Teeth, miscellaneous cultures .. .. .	8
Throat washings for influenza virus .. .. .	5
Pleural fluid for examination and culture .. .. .	7

**Food and Food Hygiene**

Presumptive coli count .. .. .	5
Dissection and identification—	
<i>Cysticercus bovis</i> .. .. .	87
Meat inspection histology .. .. .	200
Films and cultures .. .. .	357
Tubercle .. .. .	26
Biological tests .. .. .	2
Antibiotic sensitivity .. .. .	7
Shellfish (batches) .. .. .	57
Microscopy and miscellaneous investigations .. .. .	20
	<hr/>
	34,925
	<hr/>

**Other Examinations** (Clinical, Pathological etc.)*Urine*

Chemical tests .. .. .	365
Deposit and culture .. .. .	843
Films including tubercle .. .. .	40
Antibiotic sensitivity test .. .. .	118
Lancefield grouping .. .. .	2
Mycobact. tuberculosis—	
Culture .. .. .	18
Biological tests .. .. .	36
Concentration tests .. .. .	1

*Pregnancy Diagnosis*

Friedman tests .. .. .	446
Quantitative Friedman test .. .. .	4

*C.S. Fluids*

Films only .. .. .	7
Mycobact. tuberculosis—	
Culture .. .. .	32
Biological tests .. .. .	78
Identification of culture .. .. .	2
Pneumococcal typing .. .. .	1
Mouse inoculation .. .. .	1

*Pus and other Fluids*

Films and cultures .. .. .	34
Mycobact. tuberculosis—	
Culture .. .. .	59
Biological tests .. .. .	263
Pneumococcal typing .. .. .	1
Antibiotic sensitivity test .. .. .	31
Autogenous vaccine .. .. .	3
Trichomonas vaginalis, microscopy .. .. .	1

*Parasitology*

Faeces for ova, protozoa, etc. .. .. .	94
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*Sputum*

Gram films and cultures .. .. .	4
Antibiotic sensitivity .. .. .	12
Lancefield grouping .. .. .	1
Mycobact. tuberculosis .. .. .	1
Mycological cultures .. .. .	1
Streptomycin sensitivity test .. .. .	203
(Mycobact. tuberculosis)	

*Miscellaneous*

Cultures for identification .. .. .	14
Faeces for culture .. .. .	1
Faeces for chemistry .. .. .	1
Teeth for culture .. .. .	2
Sensitivity tests, Sulphonamide .. .. .	1
Antibiotic sensitivity test .. .. .	12
Blood culture .. .. .	31
Toxoplasmosis .. .. .	6
Culture for virulence .. .. .	1
Post-operative organ culture .. .. .	3
	<hr/>
	2,774

*Venereal Diseases*

Blood for Wassermann reaction .. .. .	10,043
„ „ Kahn reaction .. .. .	9,801
„ „ Quantitative reaction (W.R.) .. .. .	1,224
C.S. Fluids for Wassermann test .. .. .	747
„ „ „ Cells .. .. .	30
„ „ „ Globulin .. .. .	112
„ „ „ Protein .. .. .	4
„ „ „ Lange .. .. .	244
„ „ „ Count .. .. .	2
Films for Gonococci, microscopy .. .. .	5,494
Cultures for Gonococci .. .. .	5,483
	<hr/>
	33,184
Grand total .. .. .	<hr/>
	70,883

**Movement of Swine Order, 1952**

During the year 1,061 pigs were licensed out of Bristol Market and 7,472 pigs arrived in Bristol under licence. The fattening pigs were inspected during the compulsory 28 days period of detention.

**Fowl Pest**

There have been six outbreaks of the disease during the year, all traced to birds brought into the City from the county of Norfolk. The total number of birds affected was 238. The Ministry of Agriculture prohibited the movement of birds out of that county and there has been no further incidence of the disease in Bristol.

## **Tuberculosis**

The usual examination and testing of dairy herds has been carried out under the scheme conducted by the Ministry of Agriculture. There has been a welcome increase in the number of attested tuberculosis-free herds, the percentage having increased from 42 in 1953 to 45 in 1954. It is hoped that before long the Ministry of Agriculture will declare this area of England to be an eradication area.

## **Inspection of Pet Shops**

The usual inspection of pet shops has been carried out during the year and three new pet shops were opened.

One prosecution was instigated during the year for the operation of an unlicensed pet shop. The owner was granted a conditional discharge on payment of costs.

## **Importation of Dog and Cat Order, 1928**

Nine cats were destroyed on ships at Avonmouth Dock during the year and the necessary certificates issued to H.M. Inspector of Customs.

One disturbing incident occurred during the year in which a dog escaped from a Greek ship and was taken to the Bristol Dogs home at Albert Road. Fortunately the dog was put in a kennel by itself and did not come in contact with any other dog at the Home. Permission was obtained from the Ministry of Agriculture to put the dog back on board the ship. Had the dog been suffering from rabies the consequences would have been serious indeed.

## **Medical Liaison Work**

Some 18 cases of ringworm in dogs and cats have been investigated and reported to the M.O.H. and to the medical practitioners attending the owners of the animals. In one case I was approached by the medical practitioner concerning the evidence of ringworm in a family. The cat owned by the family was examined with the aid of Wood's glass and ringworm was diagnosed, although no lesions could be detected by the usual methods. The necessary apparatus was made available by the University of Bristol Veterinary School.

Six cases of parasitic (sarcoptic) skin infestation were reported, and in one case the owner was found to have lesions on the arms.

Two cases of tuberculosis in cats were reported, but none could be found in the families concerned.

# **CIVIL DEFENCE RESPONSIBILITIES OF THE MEDICAL OFFICER OF HEALTH**

Dr. H. Temple Phillips  
(*Chief Assistant Medical Officer of Health*)  
and E. G. H. Spencer

## **Additional Responsibilities**

In July 1954, the Minister of Health presented to Parliament draft regulations with regard to the provision of a Casualty Collection Service. These regulations were approved, and require County and County Borough Councils to make plans for the provision of a service

for the collection and removal of casualties resulting from hostile action. This is to be operated in conjunction with the Ambulance Services provided by these authorities who are required, when so requested by the Minister, to put the plans into force in accordance with instruction.

The task of "collecting casualties" has been added to the duties already due to be performed by the Ambulance Section of the Civil Defence Corps, and the Section has, therefore, been renamed the Ambulance and Casualty Collecting Section. Additional personnel will be needed to carry out these specific functions, and the peace time establishment has accordingly been increased by 50 per cent of the present establishment of the Ambulance Section. The new duties of the Section will include :—

(a) To carry stretcher cases from areas inaccessible to wheeled transport to ambulance loading points.

(b) To render first aid to untrapped stretcher cases and possibly also to trapped who have been rescued, but cannot be moved immediately.

(c) To provide stretcher bearers at places where mobile first aid units are set up.

(d) To augment staff at hospitals for unloading ambulances.

(e) To provide stretcher bearers at rail heads for the loading and unloading of ambulance trains.

(f) To supervise stretcher bearers drawn from members of the public following a heavy attack.

Stretcher bearing was originally the responsibility of the Pioneer Section of the Corps, but this section was amalgamated with the Rescue Section in 1952, and from then, until the above regulations came into force, there was no provision for stretcher-bearing other than from incident to ambulance loading points.

It is understood that a syllabus of training in the new duties is to be issued and, pending receipt of this syllabus, training consists of that laid down for members of the Ambulance Section.

The training of this new sub-section is the only addition to the Medical Officer of Health's Civil Defence responsibilities during the year under review.

### **Instructors**

All existing Instructors, whether trained at a Home Office school or locally, will, in due course, have to attend refresher courses to enable them to teach the new syllabus which is being introduced for all sections of the Corps. The purpose of the new training is to reduce the time taken to train members of the Corps and, of course, takes into consideration the changes consequent upon the advent of the hydrogen bomb.

### **First Aid Training**

Twelve full first aid classes were held during 1954 and seven basic courses. There were four refresher courses arranged for volunteers already in possession of a first aid certificate and four series of refresher lectures for those volunteers trained in basic first aid. The following table shows the number of volunteers who responded to this phase of training.

## FIRST AID TRAINING

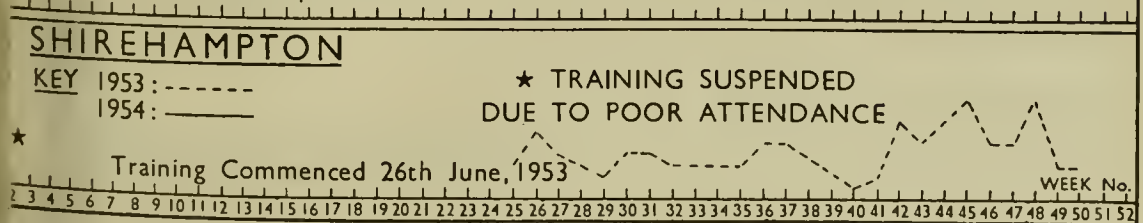
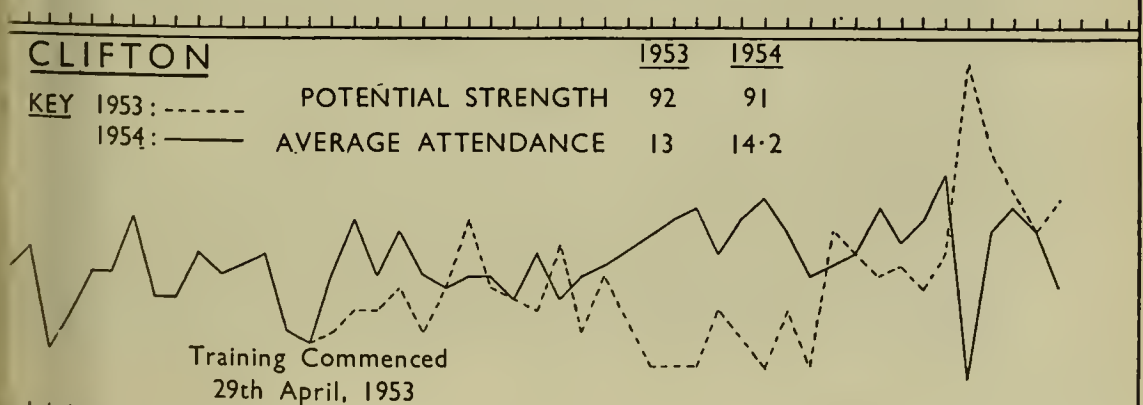
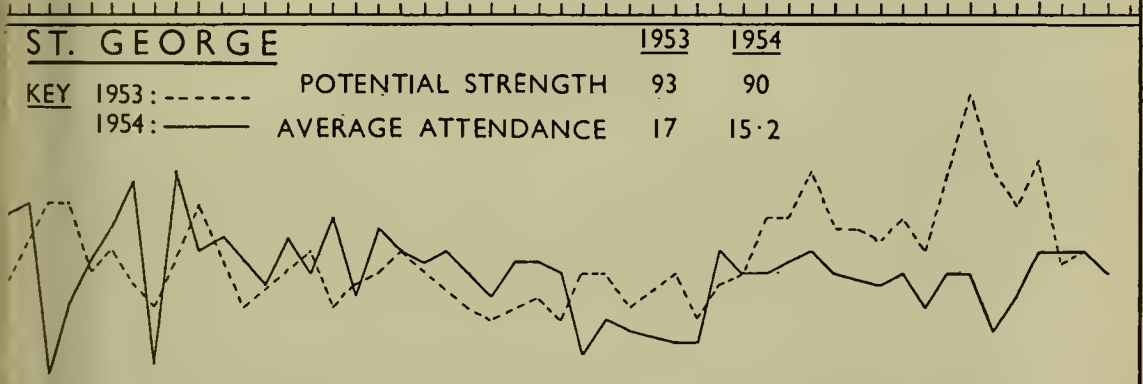
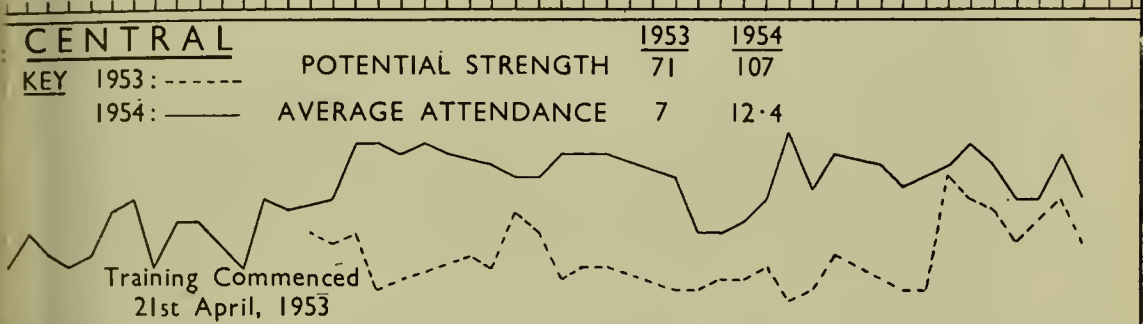
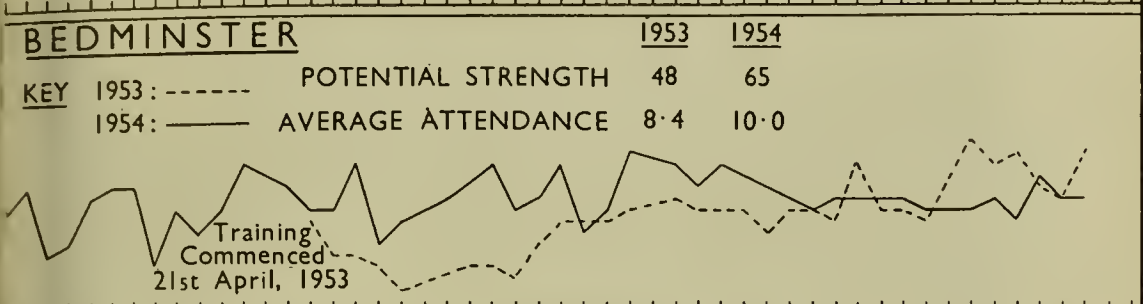
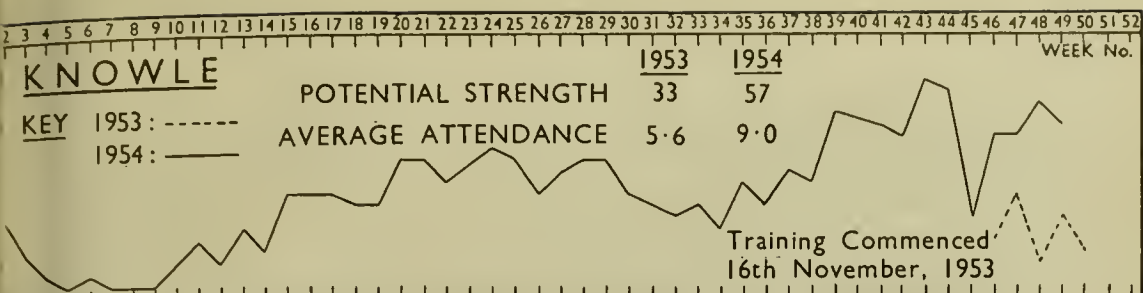
	Full First Aid		Basic First Aid	
	Initial course—12 lectures and demonstrations followed by an examination	Refresher course—6 lectures and demonstrations	Initial course—6 lectures and demonstrations	Refresher course—4 lectures and demonstrations
No. of classes arranged	12	4	7	4
Classes started but cancelled due to poor attendance .. ..	2	1		
Classes examined up to 31.12.54 .. ..	5			
No. of volunteers examined .. ..	70			
Passed .. ..	68			
Failed.. ..	2			
No. of volunteers commencing refresher or basic courses ..		34	110	85
Attended 6 lectures	.	8	31	
Attended 5 lectures		8	35	
Attended 4 lectures		8	20	
Attended less than 4 lectures .. ..		10	24	
No. completing course		16	66	61

Because of the difficulties experienced in obtaining a minimum of twelve volunteers—the number considered desirable to justify new classes—the Civil Defence Committee in December, 1954, authorised the Medical Officer of Health to commence classes with a minimum of six volunteers. This arrangement is to operate for a trial period of six months, after which the matter is to be reviewed. It is hoped that this arrangement will enable more classes to be started, with a resulting increase in the number of volunteers trained in this specialist subject.

**Ambulance Section***Training*

Although many volunteers have still not responded to continued invitations to participate in training, weekly practices have been held in all Sub-Divisions except Shirehampton. Training in this division was reluctantly cancelled during January because of poor attendance. Efforts have been made, however, to resume practices at an early date and there appears to be every possibility that this will be achieved. The graph which appears below shows the potential strength of each Sub-Division and also weekly attendances. For comparison, the relevant detail for the previous year is also shown.





The training is made as practical and as varied as possible, and volunteers are enabled to gain up-to-date knowledge of a variety of interesting subjects. Many of these subjects can be of assistance to them in every day life, and these include map reading; motor maintenance; duties of ambulance drivers and attendants; care and maintenance of equipment; reconnaissance and reporting; traffic control; and co-operation with the Police, Fire Services and the R.A.M.C. Field Ambulance.

Practical exercises are arranged from time to time and casualties are suitably faked to enable correct diagnosis and treatment to be carried out. Realistic conditions are simulated and various hazards which are likely to be encountered during an emergency are introduced—fire, collapsed buildings, blocked roads, chemical warfare, etc. Films are also used for instructional purposes and a third ambulance has now been purchased.

Volunteers who are in possession of current first aid certificates are invited to accompany members of the peace time service about their normal duties, and are thus enabled to gain practical experience.

In addition to participating in normal training activities, certain volunteers took part in a film which was made in the Barton Hill Area. This film, which is primarily for recruiting purposes, was made by the Bristol Amateur Cine Society and is entitled "Our Good Neighbours." Members of the Bristol Musical Comedy Club played the leading roles in the film.

### *Competitions*

(a) The first local Ambulance Section competition was held in April. Three teams competed, one from each of the following Sub-Divisions—Clifton, St. George and Bedminster. Each team consisted of four persons and the competition was won by Clifton. The Civil Defence Committee presented a handsome trophy, in the form of a silver cup, for this competition, and this will be competed for annually. Members of the winning team, and runners up, each received a prize of their own choice.

The test was based on the Manual of Basic Training, the Civil Defence first aid manual and the Home Office section training syllabus. It included practical team work and questions to individual volunteers. The competition was organised by Mr. E. G. H. Spencer and the Deputy Chief Ambulance Officer, Mr. E. C. Joy. These Officers also prepared the questions for the oral part of the test, except those on first aid. Dr. D. T. Richards, Senior Medical Officer (Port), arranged the test and judged the practical work of each team, whilst Dr. R. West, of Messrs. W. D. & H. O. Wills, set the questions and adjudicated in the oral first aid test. Dr. A. M. McFarlan judged the practical "section" work and Mr. F. A. V. Jenkins, Home Office Regional Officer, awarded points to the contestants for their answers to questions on Map Reading, etc.

It is understood that this was the first competition of this type organised in the South-Western region, and it may well be that Bristol set the lead to the rest of the country. As far as is known, the only other competition of this type was staged at Wembley on Sunday, 30th May.

### *Regional Quiz Competition*

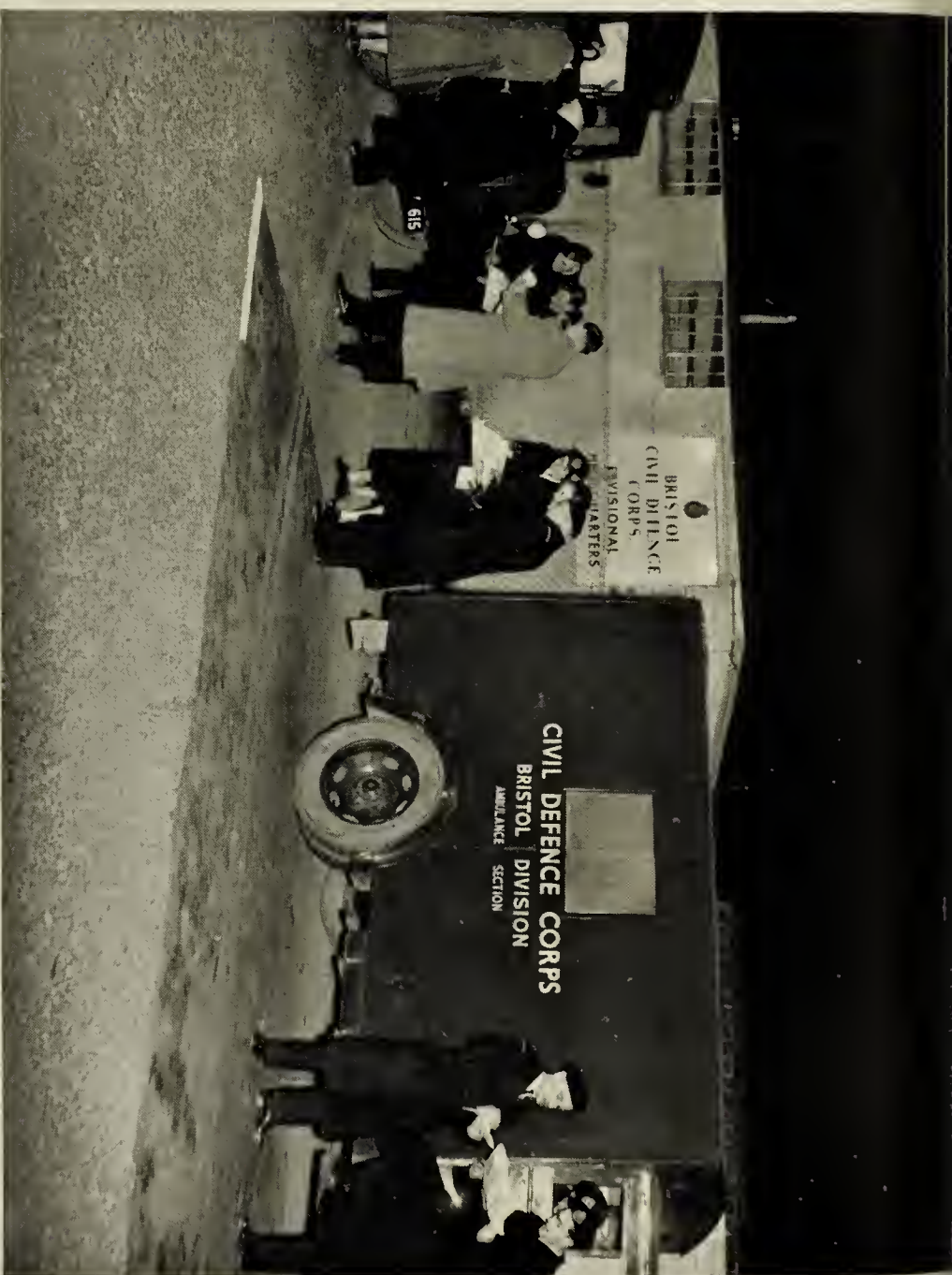
(b) Teams from Bedminster, Clifton, and St. George competed in the preliminary round of this competition and the winning team



Members of the Ambulance and Casualty Collecting Section receiving instruction on the working of internal combustion engines

(Photograph by "Bristol Evening World")





Members of the Ambulance and Casualty Collecting Section plotting a route before setting out  
on a map reading exercise

(Photograph by "Bristol Evening World")



was entered by Bedminster. This team represented the Ambulance Section against the Welfare Section, and subsequently the Bristol Division of the Corps against other authorities. These volunteers were successful against Wiltshire at Corsham, but lost at Berkeley in the semi-final against Gloucestershire.

### *Parades*

Members of the Section participated in several local parades during the year, e.g. the Battle of Britain parade, Remembrance Day, and others, and in October attended Bristol Cathedral with other Sections of the Corps to witness the dedication of a memorial window. The window bears the following inscription:—

“ This ancient glass was releaded and placed in this window by members of the Bristol Civil Defence Medical Services to the Glory of God and as a thank-offering for the services they were privileged to render to the City from 1939–1945.”

The cost of restoration was defrayed by subscriptions received from members of the A.R.P. Medical Services of the last war.

### **Civil Defence Training for Members of the City Ambulance Service**

Details of this phase of training are contained in the Chief Ambulance Officer's report.

### **Staff Establishment**

A temporary clerk/shorthand typist is the only person employed upon full time Civil Defence duties at present. The other officers concerned with organisation and training, carry out their respective functions in addition to normal Health Department responsibilities. As most of the training is, of necessity, undertaken during the evenings and at week-ends, a considerable amount of duty outside of office hours is inevitable. During 1954 this amounted to some 840 hours worked by three officers in one section alone.

## **MEDICAL RECORDS IN THE PUBLIC HEALTH DEPARTMENT**

Miss E. H. L. Duncan  
(*Medical Records Officer*)

The year 1954 has been one of changes in the duties pertaining to the post of Medical Records Officer.

A statistical unit has been set up which, besides the previous statistical section, also includes a new mechanical punched card installation.

The punched card section is a joint venture between the Department of Public Health and the Department of Preventive Medicine of Bristol University. It is available for the analysis of the medical records of the Department whether done routinely or otherwise, for *ad hoc* socio-medical surveys, etc. There are two technical assistants to operate the machines which consist of punching and verifying equipment and a counter-sorter which handles the cards at a rate of 400 per

minute. We are fortunate in adding these machines to the facilities already available to those of our staff who are concerned with assessing the health standards achieved in Bristol.

The speed and automaticity of punched card machines prove attractive to visitors, and numerous individuals and parties of people who are working or studying in the medical field have been shown round the unit. As the use of these machines is becoming more widespread the opportunity was taken of explaining to those who might be involved, some of the general principles governing the form in which data have to be presented for efficient handling by punched card equipment.

A Friden desk calculating machine has been received during the year and has been used for the calculation of rates and the statistical analysis of data, with a considerable saving of time on previous methods available. This mathematical analysis by statistical methods is a branch of the work which will, no doubt, increase in the coming year as a consequence of the results produced by the punched card equipment.

Various surveys have been assisted, often with the planning and administration as well as with record designing and analysis. These are in various stages of completion and cover a wide variety of subjects: accidents occurring at home and requiring treatment at hospital, school accidents, the unmarried mother, her background and her child, the analysis of staff sickness records, illnesses in a general practice consisting entirely of children, cases seen by health visitors specialising in the sick and aged, a maternity survey under the auspices of the South Western Regional Hospital Board, a survey among students at Bristol University, etc. Some assistance of this kind is occasionally necessary for investigators outside the Public Health Department, especially when they are planning to use the punched card equipment for analysis.

Many records and forms have, on request, been designed during the year or modified according to current requirements. The revising and streamlining of records so as to allow the maximum necessary information with a minimum of clerking is time well spent, but unfortunately, it requires a considerable amount of time and thought from the doctor or other specialist in charge as well as from the Records Officer and other duties are often more pressing. It is hoped to continue to consider sections of the records from time to time keeping in mind possible analyses as well as their clinical use.

Records systems also require attention from time to time, especially where various stages of the work are done in different sections and there has to be overall co-ordination. A records system was devised for the Part III accommodation at 100 Fishponds Road so as to provide various medical statistics of patients for use by the Executive Committee. A preliminary plan for a revised records system for the District Nursing Services was put forward which covered the various statistical requirements and also allowed an easier analysis of cases, current or completed, by medical diagnosis, etc. This is being held in abeyance for the time being until the findings have been issued of the Committee on District Nursing Records now sitting, which was set up by the Society of Medical Officers of Health. Minor sections within the department have also been dealt with on "organisation and method" principles.

A number of lectures on different aspects of Public Health Department records have been given during the year, and there have been numerous discussions of records and record systems with small groups of visitors to the department, many of whom are on study courses from abroad.

## ADMINISTRATION

P. J. Room

*(Chief Administrative Assistant)*

### Staff

In June Mr. J. F. K. W. Huguet, Senior Clerk in the Environmental Health Division of the Department retired from the service of the Corporation. He had spent 40 years in the Health Department occupying a number of posts in various sections, being finally appointed to his last post in September 1933. He was a man of great reliability and unswerving loyalty and very popular with his colleagues. All concerned with him in the Department wish him well in his retirement.

His post has been filled by the appointment of Mr. F. J. Jones who was a Group Clerk in this Section, and has been with the Department for 21 years.

Mr. D. M. Evans, B.A., Personal Assistant to the Medical Officer of Health resigned this position on 30th September, 1954, to enter the teaching profession. This post was a new one when first occupied by Mr. Evans in November 1949, and he has built up the Health Education activities of the Department to make it a most effective arm of the service.

Mr. P. Mackintosh, B.A., was appointed to fill the vacancy and commenced his duties on 1st December. He comes from a Research Group in a Government Department, and brings a wide experience to enlarge the field of activities in health education. The words "for Health Education purposes" were added to the designation of the post of "Personal Assistant to the Medical Officer of Health" to clarify the functions attaching to it.

In September the Health Committee authorised the appointment of a Psychiatric Social Worker in the Mental Services Section of the Department in accordance with the proposals under the National Health Service Act approved by the City Council. Miss Margaret Astley was appointed to the post and until the work required in this Section assumes its full proportions her services are made available to the Education Department for four sessions each week.

Miss C. M. Wood, M.A., Nutritionist left the service of the Committee in August to take an appointment under the Bath City Council and the post had not been filled at the end of the year.

### Central Health Clinic

The portion of the Clinic occupied by the Regional Hospital Board as the Chest Clinic has been remodelled during the year. Alterations have been made in the use of various rooms, new lighting has been installed, and the whole wing tastefully decorated.

During the year arrangements were made with the Bristol University for the establishment of a joint statistical unit.

The resident caretaker at the Clinic was found accommodation elsewhere and the flat he occupied provided the office space necessary for the unit. The various machines were provided by the University together with the operators. Two clerks of the Department carrying out work associated with the statistical records were transferred to the unit and the whole placed under the supervision of the Department's Medical Records Officer.

### **Welfare Foods**

In July, the Ministry of Food discontinued the distribution of welfare foods to mothers and young children and this work was undertaken by the Department. Arrangements were made to use the main clinics as the principal points of issue and other buildings in the City used for infant welfare sessions, etc., school premises and the premises of voluntary bodies were brought into the service.

Additional adult helpers in the clinics and an extra clerk in the administrative section were appointed to assist in these duties.

### **Brooklea Clinic**

Brooklea Clinic was completed in December 1953, and was officially opened by the Lord Mayor on the 25th January.



## Appendices

# CONSTITUTION OF THE HEALTH COMMITTEE, 1954

### *Chairman :*

Rev. Canon A. M. STOCKWOOD, M.A.

### *Vice-Chairman :*

Alderman G. A. WATSON ALLAN

### *Alderman :*

Mrs. C. M. KEEL

### *Councillors :*

Mrs. A. M. CHAMBERLAIN	Mrs. E. KEIGHT
W. W. CLOTHIER	Dr. A. M. MACLACHLAN
E. A. S. CROCKER	A. MADDISON ( <i>Resigned</i> Sept. 1954)
W. H. ENGLAND	R. C. MANSFIELD
J. D. FISK	J. J. MILTON
G. P. C. FORD	Mrs. A. E. NUTT
S. T. GAMLIN	Miss J. STEPHEN ( <i>Appt.</i> 12.10.54)

## PUBLIC HEALTH STAFF, 1954

**Medical Officer of Health** (City, Port and Schools) : R. H. PARRY,  
M.D., B.S.(LOND.), F.R.C.P., D.P.H.  
**Deputy Medical Officer of Health**: R. C. WOFINDEN, M.D., B.S., D.P.H., D.P.A.

### Principal Assistants

**Chief Assistant Medical Officer of Health and Senior Medical Officer for Mental Health**: H. TEMPLE PHILLIPS, M.D., B.S., D.I.H., D.C.H., D.P.H.

**Senior Medical Officer—Port** : D. T. RICHARDS, M.R.C.S., L.R.C.P., D.P.H.

**Senior Medical Officer—School Health Service** : A. L. SMALLWOOD, M.D.,  
CH.B., D.C.H., D.P.H.

**Senior Medical Officer—Maternity and Child Welfare** : SARAH C. B.  
WALKER, M.D., B.S., D.P.H.

**Senior Medical Officer—Tuberculosis** : A. M. MCFARLAN, M.A., M.B., B.CH.

**Senior Dental Officer** : W. H. B. STRIDE, L.D.S.

**Chief Sanitary Inspector** : F. J. REDSTONE, F.R.SAN.I., F.S.I.A.

**Chief Administrative Assistant** : P. J. ROOM.

**Chief Nursing Officer** : Miss L. B. BENDALL

### **Technical Officers**

*Personal Assistant to the Medical Officer of Health*: D. M. EVANS, B.A.  
(Resigned 30.9.54)

P. MACKINTOSH, B.A. (*Commenced* 1.12.54)

*Medical Records Officer*: Miss E. H. L. DUNCAN, M.A., B.SC.

*Nutritionist*: Miss C. M. WOOD, M.A. (*Resigned* 31.8.54)

### **Consultant Bacteriologist**

Professor K. E. COOPER, B.SC., PH.D., M.R.C.S., L.R.C.P., A.I.C.

### **Deputy Consulting Bacteriologist**

H. R. CAYTON, M.B., CH.B.

### **Public Analyst**

E. G. WHITTLE, B.SC., F.R.I.C.

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## INTRODUCTION

A.L.S.

This Report has again been presented with the subjects arranged in alphabetical order, which is, I think, the form which makes for easy reference to the various sections.

The special investigation which has been conducted by Miss C. E. Cooke, the Senior Woman Organiser of Physical Education, during the past two years into accidents in schools has been continued, and a comprehensive and detailed report on accidents arising in schools during 1954 is given by her on page 3.

Each year, I am responsible for the medical examinations of the boys who take part in the schools boxing events. This seems to be a subject of some interest and a report on the findings at these examinations during the year is given on page 8.

The dental staff position continues to cause anxiety, and the hoped for improvement after the introduction of revised salary scales for school dentists, has not so far materialised. There are still four vacancies on the establishment of full-time dental officers, and whilst part-time dentists are engaged to cover as far as possible the deficiency, the position unfortunately is still far from satisfactory. Mr. Stride, the Principal Dental Officer, comments on this in his report on page 22.

Mr. D. M. Evans contributes on page 39 a very full report on a pilot course on health education which was held for school leavers at Portway School and a course for teachers in secondary modern schools which was held at the Central Clinic. This is a branch of the work which I think has not so far been developed to any great extent in the schools and which is capable of yielding very good results.

During the year arrangements were made with three of the direct grant grammar schools of the City for the medical inspection and treatment of the pupils in attendance at the schools. This is a new departure in the School Health Service in Bristol and a report on the arrangements is given on page 54.

The staff of the Child Guidance Clinic has during the last two or three years been conducting a follow-up survey of all the cases examined at the Clinic during 1946. Dr. Barbour in his report (page 10) gives the results of this survey.

Other points of particular interest in this Report are the re-opening of the Asthma Clinic (now called the Children's Chest Clinic) (page 16), the extension of the accommodation at Claremont School for Spastic Children (page 37), and the commencement of B.C.G. vaccination of thirteen-year-old children (page 68).

I should like once more to acknowledge the assistance given by the many contributors to this Report. Our thanks are again due also to the Chief Education Officer, school welfare officers and the teachers for their willing co-operating in the work of the School Health Service and their help in providing for the needs of particular children. Good relationships with the hospitals and general practitioners continue and there is closer liaison between all those who are concerned in the health and welfare of the school child.

I have also to acknowledge once again the help given by Mr. J. H. Middleton for his work in assembling, editing and correcting the various sections of the Report.



**ACCIDENTS IN SCHOOLS, 1954**

C. E. Cooke

Accidents that have occurred to children in schools during 1954 have been recorded on the same lines as before and have again been analysed by the punched card system.

From the reports sent in by the Heads of schools, it will be seen that there were more accidents in 1954, 547 as compared with 465 in 1953. When children feel cold they are more tense in their movements and this lack of ease or relaxation is apt to contribute to accidents. It is possible that the lack of sun in 1954 could be partly blamed for the increase in accidents. The number of fractures increased by 35 to a total of 170 during the year. In the case of the boys, the peak of numbers of fractures seems to be at the thirteen- to fourteen-year levels, whereas, in the case of the girls, it is at the age of twelve. This is in line with the fact that the girls' pre-adolescent spurt occurs before that of boys. Taking the dislocations with the fractures, the risk of severe limb injury is exactly twice in the case of boys as compared to girls. Of the total number of accidents, fractures and dislocations together are 125 out of 547 giving a percentage of 23.

Sprains and strains seem to be equally common with boys and girls ; whereas in the case of the boys they occur in the older age groups, in the case of the girls they seem to be more widely scattered. No particular reason for this is apparent. It will be seen that cuts and punctures amount to 209 and are chiefly those to the head. This type of injury seems to have a peak incidence in boys of seven years of age and in girls, curiously enough, at the five to six-year level, with a secondary one at the age of twelve. This may be accounted for by the relative inco-ordination of the older boy. It seems that girls have often more inco-ordination at younger ages. The total risk is, of course, three times greater in the case of boys than in the case of girls. The risk in the case of the boys is well scattered over all the age groups.

Burns and scalds that are recorded are only those which occur at school, and it is interesting to see that only one concerned a girl, this in cookery, whereas 8 boys were burned, 4 of them at science. This, we think, is a great tribute to the care which is taken in domestic science subjects, where the risk would seem to be greater than in the boys' science laboratories, although the numbers are very small. One boy of six was scalded when he "dipped his foot into the infants' canteen." There were more "squeezed finger" accidents this year, the majority being associated with high winds slamming doors. Several squeezed fingers occurred in lavatories and this may be worth investigating. Girls seem to squeeze their fingers more often than boys, but in both cases it seems to be an infantile attribute. Bruises and abrasions are many but usually of a slight nature. The risk to boys is again almost twice that to girls, with a peak incidence for boys at seven years (as in the case of cuts and punctures) and at six years in the case of girls.

The swallowing of the top of a fountain pen was reported and has therefore been included in the 547 accidents although there have been no ill effects.

Concussion must always be regarded as a serious manifestation of injury, but of course there is some doubt as to how a teacher would interpret concussion. It might not be synonymous with unconsciousness and may merely mean a head blow with dizziness. However, allowing for

all this, three times as many boys as girls suffered this injury. Nose bleeding accounts for a surprisingly small proportion of the total. The number suffering from this injury was 7 (4 boys and 3 girls) and this compares with last year where the figures were again approximately equal. In some cases the bleeding was probably a result of a structural condition of the nose, i.e. an unstable vein, rather than a direct consequence of injury to the nose.

### Places of Injury

Once again a very large proportion of the accidents occurred in playtime, 231 during 1954 as compared with 170 in 1953. Next after this group was that attributed to physical training. Taking fractures and dislocations together the chief places where this sort of injury took place were playtime, games and physical training. Playtime is not as risky in the case of boys as physical training.

Anyone who has observed the habits of children in the school playground knows, of course, how much the boys indulge in vigorous activities, whereas the girls tend to stand about and gossip. The disparity is not so marked in the case of physical training but it can still be accounted for by the extra vigour of the boys at P.T. A personal impression is that the girls tend to be more deft and graceful in their movements. This perhaps is more marked the older the boys and girls are. At the age of fourteen, as will be seen from the table which follows, ten boys and four girls had accidents during physical training.

### "Accident Prone" Children

Four children had two accidents in 1954. Only one of these had the same type of accident, both being to the head, caused by collisions at playtime.

On enquiry it was learnt that the boy was not in any way clumsy and had had no other accidents of any kind. At the junior school to which he has now gone he appears to be perfectly normal.

Of the children whose names appear as having accidents in 1953 and 1954 nothing unusual is reported, except that one of them is very nervous, had had an unsettled home and is now with foster parents. Another boy who fractured his left arm in both years by collisions at playtime is reported as being perfectly normal and accident free, the only apparently unusual comment being that "he and his brother are the only ones to eat a decent meal."

From all this it would again appear that there are no "accident prone" children.

It may be of interest to note that of the six Primary Schools with a greater proportion of accidents, two of them were among the very few schools without climbing apparatus, while one has no indoor space and consequently practically no physical education in winter.

Of the Secondary Schools the highest rates per thousand were as follows :—

<i>Boys</i>				<i>Girls</i>			
School A	...	50		School A	...	17	} Both working on rather formal lines
School B	...	36		School B	...	17	
School C	...	35					

# BRISTOL SCHOOL ACCIDENT SURVEY, 1954

Occasion on which Injury Occurred by Age and Sex

Occasion	5		6		7		8		9		10		11		12		13		14		15		16		Total
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	
Playtime at school	18	6	17	13	32	5	14	11	19	5	14	6	19	8	10	9	10	2	3	2	6	1	1	-	231
Games in field ...	-	-	-	-	1	-	-	-	-	-	3	-	3	-	2	1	4	-	11	1	4	1	-	-	31
Games in playground	-	-	-	-	2	-	-	-	1	-	5	-	1	2	1	-	1	1	5	1	-	-	-	-	20
P.T. ...	4	-	4	3	5	3	5	2	2	2	1	1	4	3	7	6	6	5	10	4	-	-	-	-	77
Swimming baths ...	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	1	-	-	5
Science lesson ...	-	-	-	-	-	-	-	-	-	-	-	-	3	-	1	-	-	-	-	1	-	-	-	-	5
Domestic science lesson ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	4
Gardening ...	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	2	-	1	-	-	-	-	-	5
Classroom ...	3	5	5	3	1	2	2	1	4	1	-	-	4	-	2	-	-	1	-	-	-	-	-	-	34
Woodwork, metal work ...	-	-	-	-	-	-	-	-	-	-	-	-	1	-	4	-	9	-	7	-	2	-	-	-	23
Other ...	3	7	6	8	7	2	6	2	8	5	6	2	4	5	2	3	9	5	10	9	1	2	-	-	112
TOTALS ...	28	18	32	27	48	12	28	16	34	13	29	9	40	19	29	21	42	16	47	20	13	5	1	-	547

## BRISTOL SCHOOL ACCIDENT SURVEY, 1954

Types of Injuries by Age and Sex																								
5		6		7		8		9		10		11		12		13		14		15		16		Totals
B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	
Fracture ...	8	-	4	7	4	3	4	6	4	8	1	10	2	6	9	12	5	13	4	2	2	-	-	117
Dislocation ...	-	-	-	1	-	-	-	2	1	-	-	-	-	-	1	2	-	-	-	1	-	-	-	8
Sprain, strain ...	-	-	2	-	-	-	-	-	-	-	2	1	5	2	1	4	2	9	5	2	-	-	-	36
Cut, puncture ...	12	13	7	26	4	18	6	16	5	12	-	15	2	10	8	10	2	13	5	6	1	1	-	209
Splinter ...	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	3
Burn, scald ...	-	-	-	-	-	-	-	1	-	-	-	3	-	1	-	2	1	1	-	-	-	-	-	9
Squeezed fingers ...	2	2	5	-	1	-	-	-	1	1	2	-	1	-	-	1	2	1	-	-	-	-	-	21
Bruise, abrasion, bump ...	6	2	8	11	2	6	6	8	1	7	3	8	7	8	2	8	3	7	4	2	3	-	-	118
Concussion ...	-	1	1	3	-	1	-	-	-	-	-	2	1	-	-	1	1	3	-	-	-	-	-	15
Nose bleeding ...	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	1	-	-	1	-	-	-	-	7
Other ...	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	4
TOTALS ...	28	18	32	48	12	28	16	34	13	29	9	40	19	29	21	42	16	47	20	13	5	1	-	547



# BRISTOL SCHOOL ACCIDENT SURVEY, 1954

Type of Injury by Occasion of Accident by Sex

Type of Injury	BOYS										GIRLS										Totals		
	Playtime at school	Games in field	Games in playground	P.T.	Swimming	Science Lesson	Domestic Science Les.	Gardening Lesson	Classroom	Woodwork	Other	Playtime at school	Games in field	Games in playground	P.T.	Swimming	Science Lesson	Domestic Science Les.	Gardening Lesson	Classroom		Woodwork	Other
Fracture	35	9	2	18	-	-	-	-	2	1	11	16	1	-	15	-	-	1	-	1	-	5	39
Dislocation	2	2	-	1	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	2
Sprain, strain	1	5	2	6	-	-	-	-	-	-	4	8	-	2	1	-	-	-	-	-	-	7	18
Cut, puncture	79	5	2	11	1	-	-	3	13	16	27	21	1	1	4	-	-	-	1	8	-	16	52
Splinter	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	1
Burn, scald	-	-	-	-	1	4	-	-	-	2	1	-	-	-	-	-	-	1	-	-	-	-	1
Squeezed fingers	1	-	-	-	-	-	-	-	1	1	4	3	-	-	1	-	-	1	-	3	-	6	14
Bruise, abrasion, bump	31	5	9	11	-	-	-	1	4	3	13	16	-	-	7	3	1	-	-	1	-	13	41
Concussion	9	1	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	3	4
Nose bleeding	3	1	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	3
Other	2	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	1
TOTALS	163	28	15	49	2	4	-	4	21	23	62	371	68	4	29	3	1	4	1	13	-	50	176

## BOXING

A.L.S.

In view of the topicality of the subject it is thought that some comments might be helpful from the medical point of view. Each year the School Health Service is asked to provide doctors to inspect the boys as to their suitability for boxing in the Schools Championships. It is of course an A.B.A. ruling that all contestants for competitive boxing should be examined within 24 hours of the contest and the practice is for the school medical officers to examine the boys immediately prior to the event. This year it was felt that the former practice of examining the boys "blind," i.e. without any previous reference to the medical records, was not as helpful as it ought to be. This year therefore, the existing school medical records were extracted from the files and inspected to find out what information appeared in the records which would be likely to be of assistance to the examining medical officer. Altogether the names of 162 boys were given; and of this number there were 149 with medical records, the remaining 13 either not being in attendance at maintained schools or their records were not available for one reason or another. Incidentally the process was complicated to some extent by the practice of introducing certain boys at the last moment as substitutes for boys who could not box so that the records of a certain number of boys were not in fact inspected. The boys boxed eliminating bouts on three occasions, followed by the final events which were attended by the Lord Mayor and Chief Education Officer.

The principal findings on inspection of the records were I think somewhat remarkable. There were significant findings in 66 out of the 149 records. These conditions included the following :—

Pigmented mole the size of a shilling on the umbilicus ; an old fracture of the neck of the femur ; inguinal hernia repairs ; history of epistaxis ; functional systolic murmur ; history of otitis media ; old fractures of the bones of the arms ; recent appendicectomy ; and an old empyema scar.

One boy at the time of examination was awaiting an operation for inguinal hernia ; he was not allowed to box. The records were closely scrutinised for evidence of emotional state and there was some evidence of maladjustment in 24 out of the 149 records examined. Four of these were cases of asthma or eczema. In no less than 16 of the 24 it was recorded that the child had been enuretic at the age of five at least. In view of the known reticence on the part of the parents to confess this defect, it was likely that the total number of old enuretics amongst these boys was greater than 16. For control purposes the record cards next coming into the office after medical inspection of boys of eleven and fourteen years of age were scrutinised for the same data with the following result :—

		<i>Total</i>	<i>Enuresis</i>
Boxing boys	...	149	16
Non-boxing boys	...	286	10

$$X^2 = 10.27$$

Comparing the boxing boys with the non-boxers the difference in the incidence of enuresis is highly significant, and the probability of such a difference arising by chance is approximately 1 in a 1,000.

One interesting finding here is the fairly high proportion of asthma symptoms occurring amongst the boys. It seems worthy of further investigation to find out if there is really such a high percentage of children who have asthma symptoms.

The inspection prior to boxing is necessarily conducted hurriedly and not under ideal conditions. Boys were forbidden to box because of the following reasons :—

One for perforation of both ears ; one for blepharitis ; two cases of naso-pharyngitis with temperature ; one case of history of asthma and chest evidence of this state ; one with a bruised metacarpal ; three cases of recent B.C.G. injection scars ; one who was awaiting an operation for herniotomy and one for nervous abdominal pain.

One might expect that the three boys who were not allowed to box because of recent B.C.G. vaccination might well feel aggrieved. As a point of interest, on the final night, I myself allowed a boy to box who had a B.C.G. injection scar which I thought was small and dry enough to be safe. By chance he received a blow on the area and bled so that the bout was stopped. He was losing the contest by this time, but he too might have felt that the B.C.G. vaccination cost him the contest.

In view of the general medical findings it could hardly be argued that the process is of no value. The interesting thing is, I think, that so much more information was obtained from existing records about the boys which they would hardly be likely to confess, and which could not possibly be found in the hurried examination at the boxing hall. A medical officer was present throughout the contest but his presence was not so valuable as the information he could collect before the contest.

Two schools were obviously very well represented at the contests and on enquiry it seemed that there had been a very definite drive at these schools to interest boys in boxing with a view to gaining the Boxing Shield for the best school performance. It was thought useful therefore to compare the entries from those two schools with the boys from the remaining schools who were boxing with the following result :—

		<i>Entries</i>	<i>Maladjustment Evidence</i>	<i>Percentage</i>
The two principal schools	...	69	5	7.25
Remaining schools	... ..	80	19	23.7

$$X^2 = 6.3 \quad .02 > P > .01$$

This difference is not likely to have arisen by chance, there being less than a 1 in 20 chance of it doing so. It seems to show that the boxing entries from the two schools where there had been a special drive to recruit boys for this purpose were more normal than the boys from the other schools where maladjustment seems to have been a factor in the self-selection of the boys for boxing.

After the Bristol Championships an area contest was held on a subsequent occasion and at this time one could only examine the records of the contestants from Bristol. Boys from Gloucestershire, Somerset and Wiltshire had to be examined "blind." Of 58 boys who were examined only one was regarded as unfit to box and this was because of otitis media with a discharging ear. He was not a Bristol boy. The following abnormalities were found but were not considered sufficient reasons to merit disqualification :—

Empyema scar left side ; herniotomy scar ; pigeon chest and old asthma ; injury to finger ; Pes cavus ; septic spot on neck.

There was a final meeting for the Western Regional Area Championships when 49 boys participated in the events, including 5 substitutes. All of these boys were passed as medically fit for boxing. The only point of note was that 11 of the boys had markedly bitten nails.



**CHILD GUIDANCE CLINIC**

R. F. Barbour

**Change of Staff**

Miss Charity Clarke, the Social Worker, left the Clinic on 24th September, 1954, and her place has been filled by two part-time psychiatric social workers, Mrs. Veronica Hope and Miss Margaret Astley. The former had a wide experience of psychiatric social work before coming to the Clinic and we are extremely fortunate in having her on our staff. Miss M. Astley is part-time on the staff of the Education Committee (4 sessions per week); for the remainder of the sessions she is working for the Public Health Department.

**Annual Statistics**

	1953	1954
<i>Psychiatric—</i>		
Diagnostic interviews ... ..	317	<b>357</b> (inc. 16 o/city cases)
Physical examinations ... ..	290	<b>331</b>
Treatment interviews ... ..	1,128	<b>1,373</b>
Parent interviews ... ..	131	<b>211</b>
Others interviewed ... ..	4	<b>9</b>
<i>Psychological—</i>		
Examinations including Juvenile Court cases ... ..	504	<b>582</b>
Treatment interviews ... ..	1,061	<b>1,036</b>
Parent interviews ... ..	163	<b>190</b>
Others interviewed ... ..	14	<b>20</b>
Other visits ... ..	64	<b>100</b>
<i>Social—</i>		
Interviews with parents ... ..	1,466	<b>1,910</b>
Interviews with others ... ..	13	<b>8</b>
Home visits ... ..	90	<b>124</b>
Other visits ... ..	1	<b>—</b>

The Bristol Child Guidance Clinic was opened in June 1936. By 31st December, 1954, 6,460 cases had been examined; a further 940 had been referred but for a variety of reasons were not seen. As the two senior psychiatrists have been working at the Clinic almost since its inception there has been a continuity of policy which makes a review of the work the more interesting.

When the child guidance movement was started in this country some thirty years ago, great stress was laid on the team approach. The training and experience at that time of psychiatrist, psychologist and psychiatric social worker allowed the member of each discipline to make his or her own distinctive contribution; now much of their training overlaps, and the rather rigid three-member team approach is being replaced by more flexible arrangements. In Bristol the team approach is still the rule, though the educational psychologists in their visits to schools often screen children, interviewing both parents and children and only refer for fuller investigation those cases which they feel cannot be suitably dealt with on the school premises.

The functions of any particular clinic tend to vary according to what other facilities are available locally. The staff of one clinic may confine itself to intensive psychotherapy according to the theories of a particular school. In another clinic the preventive side of child guidance is stressed, the staff spending considerable time in seminars, lecturing to teachers and parents and to all those concerned with the upbringing of children. At yet a third it is the psychological service to the schools that is paramount.



In Bristol the clinic may be said to provide four main services :

- (i) The diagnosis and treatment of children's defects.
- (ii) The guidance of parents, in some cases relatively intensive, in others on an advisory basis.
- (iii) The provision of a liaison centre for the spreading of information where the workers of various departments—for instance from the Children's Department or Probation Office, can meet to discuss both individual cases and general principles of child care.
- (iv) The instruction of medical undergraduates and post-graduates, health visitors, social science students, etc., in the theories and practice of the upbringing of children and child psychotherapy.

The referrals to any particular clinic are influenced among other things by the public relations of the clinic, the interests of the staff, the length of waiting list. In Bristol, the Clinic is part of the School Health Service and as a result the majority of referrals come from school medical officers or Heads of schools : one result is that the cases are on the average slightly older than those seen at a similar clinic held at the Children's Hospital. In Bristol there is a high referral rate from the Juvenile Court. It has been clinic policy to allow any Bristol parent to arrange directly with the Clinic for his child to be seen without it necessarily having been first examined by a school medical officer or even by his own general practitioner ; this policy was decided on as it was felt that parents were at times reluctant to allow persons outside their family to know about problems which were not clearly medical and which they felt might stigmatise the family, for instance, stealing or masturbation.

In 1951, the Clinic Staff started a follow-up survey of *all* cases referred for the first time, which were examined by the full Child Guidance team at the Clinic in 1946. This entailed a very full analysis of that year's material. Checks on later referrals showed that the picture has not greatly changed in the last 8 years. In 1946, two psychiatrists between them gave 10 sessions to the Clinic ; there were two whole-time educational psychologists, and two whole-time psychiatric social workers. In 1946, 340 cases were referred for the first time. Of these, 213 were boys, 127 were girls. The referrals were from the following sources, the figures for 1954 being given for comparison.

## Referral

				1946	1954
School Medical Officers	...	...		102	53
Head Teachers	...	...	...	43	108
Parents	...	...	...	55	29
Juvenile Court	...	...	...	50	80
General Practitioners	...	...	...	21	22
Other Agencies	...	...	...	69	65
				<hr/> 340	<hr/> 357

### Distribution by Age

1946						1946		
Age						Boys	Girls	Total
Under	3	...	...	...	...	6	1	7
	3	...	...	...	...	6	0	6
	4	...	...	...	...	8	5	13
	5	...	...	...	...	9	4	13
	6	...	...	...	...	17	12	29
	7	...	...	...	...	29	8	37
	8	...	...	...	...	22	10	32
	9	...	...	...	...	9	8	17
	10	...	...	...	...	19	12	31
	11	...	...	...	...	13	10	23
	12	...	...	...	...	18	7	25
	13	...	...	...	...	16	12	28
	14	...	...	...	...	17	10	27
	15	...	...	...	...	12	10	22
	16+	...	...	...	...	12	18	30
								<hr/> 340

## Reason for Referral

The classification used is according to the list issued by the Inter-Clinic Child Guidance Conference before the war ; only the major reason given at the time of referral was listed :

### *I. Nervous Disorders*

Various Disorders				Boys	Girls	Total
1.	Fears	...	...	...	...	...
				anxiety, phobias, timidity, over-sensitivity	...	...
2.	Seclusiveness	...	...	unsociability, solitariness	...	...
3.	Depression	...	...	brooding, melancholy periods	...	...
4.	Excitability	...	...	over-activity	...	...
5.	Apathy	...	...	lethargy, unresponsiveness, no interests	...	...
						32

## II. Habit Disorders and Physical Symptoms

				<i>Including:</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
1.	Speech disorders	...		stammering, speech defects, hysterical aphonia, inability to speak	7	2	9
2.	Sleep disorders	...		night-terrors, sleep-walking, insomnia, talking in sleep	6	3	9
3.	Movement disorders			twitching, tics, habit-spasms, head-banging, thumb-suck-ing, nail-biting	8	4	12
4.	Feeding disorders	...		refusal of food, food-fads, nervous vomiting, putting things into mouth	1	1	2
5.	Excretory disorders			constipation, enuresis, faecal incontinence, refusal to use lavatory	35	14	49
6.	Nervous pains and paralyse	...	...	hysterical paralyses, nervous dyspepsia, pains in limbs, headache, functional deaf-ness	0	3	3
7.	Fits	...	...	epilepsy, hysterical fits, periods of unconsciousness, loss of memory	3	0	3
							<hr/> 87

## III. Behaviour Disorders

		<i>Including:</i>	Boys	Girls	Total
1. Unmanageable	...	disobedience, beyond control, persistent negativism, defiance, refusal to work or go to school	21	17	38
2. Temper	...	tantrums, anger, screaming fits	9	4	13
3. Aggressiveness	...	bullying, destructiveness, spitefulness, cruelty	5	4	9
4. Jealous behaviour	...	...	1	0	1
5. Demanding attention	...	...	3	4	7
6. Stealing	...	begging	30	20	50
7. Lying and romancing	...	...	2	0	2
8. Truancy, attention	...	wandering, staying out late	11	2	13
9. Sex difficulty	...	masturbation, sex play, homosexuality	8	2	10
10. Adolescent sex	...	...	1	5	6
					149

## IV. Educational and Vocational Difficulties

							Boys	Girls	Total
1.	Backwardness		Including:	mental	retardation,	school			
	attention ...	...		failure	...	...	23	14	37
2.	Inability to								
	concentrate	...		day-dreaming,	inattention	...			
3.	Inability to keep jobs			...	...	...			
4.	Special disabilities	...		high-frequency	deafness,	word			
				blindness,	handedness	...			
	Miscellaneous	...		...	...	...			
							18	17	35

## Distribution by Intelligence was

I.Q.			Juvenile Court	Other	Total	
39 —	...	...	0	2	2	29.4%
40-54	...	...	1	7	8	
55-69	...	...	1	18	19	
70-84	...	...	18	45	63	
85-99	...	...	17	83	100	55%
100-114	...	...	7	65	72	
115-129	...	...	2	28	30	
130-144	...	...	2	12	14	15.5%
145-159	...	...	—	3	3	
160 +	...	...	—	2	2	
Not known	...	...	2	25	27	
			50	290	340	

In addition to extracting the standardised information it was decided to search the records for certain items which it was thought might influence the outcome of the case, for instance, birth injury, position in family, mother-child separation, etc. The survey was, however, carried out at least five years after the children had been seen and it was found that the

records were not always complete. It could not be assumed that the absence of an entry necessarily meant that the finding would have been negative, though in quite a few cases this probably would have been true, for instance, if the child was left-handed it would almost certainly have been noted, while if no entry was made it is highly probable that the child would have been right-handed, yet one cannot be certain. The following figures refer, therefore, to all cases where the appropriate entry had been made :—

### Position in Family

Oldest ... ..	106
Mid Sib ... ..	75
Youngest ... ..	72
Only child ... ..	56
Not known ... ..	31
	<hr/>
	340
	<hr/>

### Family Situation

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Adopted ... ..	6	8	
Fostered ... ..	9	6	
Stepchild ... ..	10	11	
Institutional ... ..	6	2	
Deceased F, otherwise normal ...	12	13	
Deceased M, otherwise normal ...	3	3	
Normal ... ..	167	84	
	<hr/>	<hr/>	<hr/>
	213	127	340
	<hr/>	<hr/>	<hr/>

Special enquiry was made with regard to difficulties at birth, feeding and toilet training, as it is a commonly accepted theory that difficulties over these matters lead to later maladjustment. In view of recent work on separation of mother and child, this also was checked on. Separation was defined as any absence from the natural mother for more than one night, if occurring under two years of age ; any hospitalisation or any absence markedly traumatic or for more than a month, if occurring under the age of six.

### Early Development

	<i>Birth</i>	<i>Feeding</i>	<i>Toilet Training</i>
Difficult ... ..	60	69	66
Normal ... ..	161	139	133
Not known ... ..	119	132	141
	<hr/>	<hr/>	<hr/>
	340	340	340
	<hr/>	<hr/>	<hr/>

### Separation Under Six

Separated ... ..	117
Not separated ... ..	141
Not known ... ..	82
	<hr/>
	340
	<hr/>



In assessing clinic work there are two alternative approaches ; the first, the long-term study of a few selected cases ; the second the study of whole populations, and for this survey it was felt that the latter was the more appropriate as it might reveal trends in the whole group, some which might be expected, others which might not be anticipated. The follow-up survey is being published elsewhere, the actual method used being specially devised by C. J. Beedell, B.Sc., for this survey. In brief, two *pro-formae* were completed by field-workers not on the clinic staff, the one referring to the child's condition when first seen, the second as it was found to be at the follow-up. The *pro-formae* were designed so that they did not indicate, in most cases, whether it was an original finding or that of a follow-up. The *pro-formae* were then given to five independent lay judges, not members of the clinic staff, who scaled each child on a five-point scale for maladjustment. Of the 340 cases originally seen, 243 were traced, their characteristics were tabulated and compared with those of the untraced.

The various findings were then correlated ; some of the results were as expected, for instance the fact that the Heads of schools referred the greater proportion of behaviour disorders and school medical officers referred more habit disorders and physical symptoms. It was not anticipated, however, that the sexes would be equally represented in all groups of symptoms excepting stealing and masturbation. Oldest and only children occurred more frequently in the " Fear " symptom group.

An unforeseen finding was that the staff in 1946 had differentiated between the sexes regarding treatment ; proportionately fewer girls were taken on for treatment than boys. This finding was so surprising that a check was made on the 1954 cases and the trend, though less marked, was still present. In 1954, of the four doctors regularly attending the clinic, two are men, two are women. Of the four educational psychologists, again two are men and two are women. Only on the social side of the work are there no men. The bias as far as the staff is concerned was quite unconscious and it is natural to wonder whether it is a local trend or whether it reflects something that is more widespread. For instance, more boys are admitted to the Children's Hospital in Bristol than girls, in the ratio of three to two. Of interest was the finding that early difficulties in both feeding and habit training, though not affecting the initial degree of maladjustment on referral, did affect the degree of improvement ; such cases either improved less or more slowly. Further, if these cases had also had a difficult birth, then progress was even more retarded. This may substantiate the commonly held hypothesis that the earlier the difficulty, the more maladjusted is the child likely to be.

Have the children got better ? The answer is definitely yes, the children seen in 1946 were certainly improved in 1951. When one tries however to determine how far this was due to attendance at the Clinic one gets on to uncertain ground. The difference between the treated and the consultation cases was not significant. It might be argued that maturation, " learning by experience," was sufficient to account for the overall improvement. On the other hand, the " treatment " group is chosen precisely for the reason that the staff consider they are unlikely to improve if left unhelped. Another relevant factor may be that 91 per cent of the treatment cases were in the traced sample, this in part due to the fact that in these cases the last contact with the Clinic was often well within the five-year period. If the ratio had been different there might have been a bigger variation between the treated and not treated. Without a control group,

it is obviously impossible to ascertain exactly what factors have determined the improvement.

Treatment of the children at the Bristol Clinic is carried out mostly by the psychiatrists, the parents being seen by the social workers. Treatment is seldom continued for more than three or four months and the interviews are usually only once a week. The staffs of some clinics therefore would not be surprised at the fact that the treated cases did not differ significantly from the untreated, for some schools of psychotherapy estimate that to be effective, treatment must involve at least fifty sessions. In one sample there was no correlation between length of treatment and degree of improvement. This again, however, was not really expected, as naturally it would be the more maladjusted cases that would require longer treatment.

This study was undertaken as a pilot survey in order to try and evolve a method which if used with other groups of children might enable the work of a clinic to be assessed, but only if more or less similar untreated cases can be compared with those who did attend. Until a larger investigation can be financed, one has to leave open the question of what percentage of cases might have improved of their own accord.

At the end of the year 22 maladjusted children were being maintained in various residential schools and hostels as follows :—

			<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Bodenham Manor School, Herefordshire ...	...	...	—	1	1
Cotswold Chine School, Box, Wilts. ...	...	...	1	—	1
Kingham Hill School, Oxfordshire ...	...	...	1	—	1
St. Peter's Residential School, Leeds ...	...	...	—	1	1
St. Andrew's School, Bridgwater ...	...	...	2	—	2
The Sutcliffe School, Winsley, Som. ...	...	...	2	—	2
St. Francis School, Hooke, Dorset ...	...	...	1	—	1
Chaigley School, Thelwall, Cheshire ...	...	...	2	—	2
River House School, Henley-in-Arden, Warwickshire			2	—	2
Southfields Hostel, nr. Ilchester, Som. ...	...	...	4	—	4
High Canon's School, Stroud ...	...	...	—	1	1
St. Catherine's School, Almondsbury, Gloucestershire			—	1	1
Penwithen Hostel, Dorset ...	...	...	—	1	1
Wellesley Home, Windsor ...	...	...	—	1	1
Southfields House, Stroud ...	...	...	—	1	1

## CHILDREN'S CHEST CLINIC

D. J. Sheerboom

For some years an Asthma Clinic was conducted by the Authority but this lapsed for various reasons in 1951. Of recent years the need for starting such a clinic again has become apparent. It was felt desirable however not to confine the work only to the diagnosis and treatment of asthma but to enlarge its scope to the care of children with chest conditions generally. After discussions with the Chest Consultants, Drs. Pearson and Roberts, and after considerable delay it was decided to start the Clinic on 1st October, 1954. The clinic is known as the Children's Chest Clinic and is run by an assistant medical officer and a psychologist of the Local Authority under the direction and with the advice of Drs. Pearson and Roberts. At the present time it meets every Wednesday afternoon; but as the work develops it may be necessary to have a morning session in addition. The reasons for re-starting the clinic were as follows :—

- (i) A continued demand from parents of children with chronic chest complaints, particularly asthma, and interference by the condition with regular attendance at school.
- (ii) The need to recognise, investigate and commence treatment early since good results can usually be obtained in children.
- (ii) To try and prevent serious chest disease such as bronchiectasis and emphysema from developing in later life and to make use of all existing facilities at the Central Health Clinic which can be brought to bear on the problem in a way we believe not to be possible elsewhere, e.g., clinical, radiological, psychological, E.N.T. and physiotherapy.

It is felt that at this age group, the psychological aspect is very important and because of this, each patient and parent is interviewed quite separately by the medical officer and the psychologist. This reduces the case load for the afternoon to four cases. In cases where it is apparent that a deeper problem is present or in cases of new patients where a full psychological testing is necessary this is done at the Child Guidance Clinic. There is also a specially selected health visitor who is in attendance at each session and carries out any visiting or liaison with other health visitors that is required. The part of the Consultant Chest Physicians is that of overall supervision, assistance in the design of records and advice about particular cases. In the early stages it is still not quite certain exactly how many cases will need the specialist advice that only they can give. At this time also it is not possible to say how many children will have to be admitted to hospital for chest investigation by the Chest Physicians; the important thing is that the facilities are there for the complete assessment of the case if and when required. It will be seen from the tables provided that the tendency is for older children to be seen and it is hoped that as time goes on more and more children will be seen for the first time at younger ages with the possibility of better end results.

The figures relating to the cases seen up to the end of the year are as follows :—

Total cases seen	...	...	...	31	
Sex distribution	...	...	...	25 Males	} M : F = 4.1 : 1
				6 Females	
Age range :	10+	...	...	...	16
	5-10	...	...	...	10
	Under 5	...	...	...	5
Family history of asthma	...	...	...	...	10
<i>Aetiology:</i>					
	Allergic	...	...	...	6
	Infective	...	...	...	8
	Psychological	...	...	...	5
	Mixed	...	...	...	9
	Non-asthmatical	...	...	...	3
<i>Treatment recommended:</i>					
	Medical	...	...	...	15
	Psychological	...	...	...	6
	Open air school	...	...	...	1
	To be kept under observation and reviewed at a later date	...	...	...	8
	Discharged, no treatment required	...	...	...	1



**CHIROPODY CLINIC**

L. I. W. Tasker

There was an increase in the number of patients and the number of treatments given at the Chiropody Clinic in 1954 as compared with 1953. New cases were 962 compared with 896, and the number of treatments 3,620 compared with 2,881. The increase was very largely due to a greater number of children suffering from plantar warts which formed by far the largest single group of cases.

There seems to have been a steady increase in the number of plantar wart cases over the last few years, but in no school has there been anything of an epidemic. The closest watch is kept on the possibility of transmitting infection and teachers and others are keenly aware of the likelihood of the spread of infection. For example, gym shoes are kept for the individual use of each child and are disinfected before being passed on to another child. It is not thought that the use of swimming baths or bare foot work in physical training has any appreciable effect in the dissemination of the virus.

The usual form of treatment for this condition is by monochloroacetic acid followed by salicylic acid, and the average number of attendances for treatment is five to six per patient. The results generally have been very satisfactory, the number of cases failing to respond being very small indeed.

The number of cases of plantar warts treated at the Chiropody Clinic during the last nine years is given below :—

1954	1953	1952	1951	1950	1949	1948	1947	1946
722	654	581	539	442	512	663	509	475

During the year about twenty-five children were referred from the Chiropody Clinic to the Orthopaedic Department for operation or physiotherapy. The following is a summary of the treatments given during 1954 :—

						<i>First</i>	<i>Other</i>
Metatarsalgia	...	...	...	...	...	6	9
Hammer toes	...	...	...	...	...	11	66
Plantar warts	...	...	...	...	...	722	3,054
Pes cavus	...	...	...	...	...	2	6
Tarsal strain	...	...	...	...	...	9	52
Hallux valgus and rigidus	...	...	...	...	...	17	51
Miscellaneous	...	...	...	...	...	195	382
						<hr/> 962	<hr/> 3,620

**THE EFFECT OF CONDITIONS IN SCHOOLS ON THE HEALTH AND ATTENDANCE OF THE CHILDREN** A.L.S.

Stimulated by an inquiry about the possible effect of poor conditions in schools on the attendance of the children, a small investigation was made at one particular school which has special facilities.

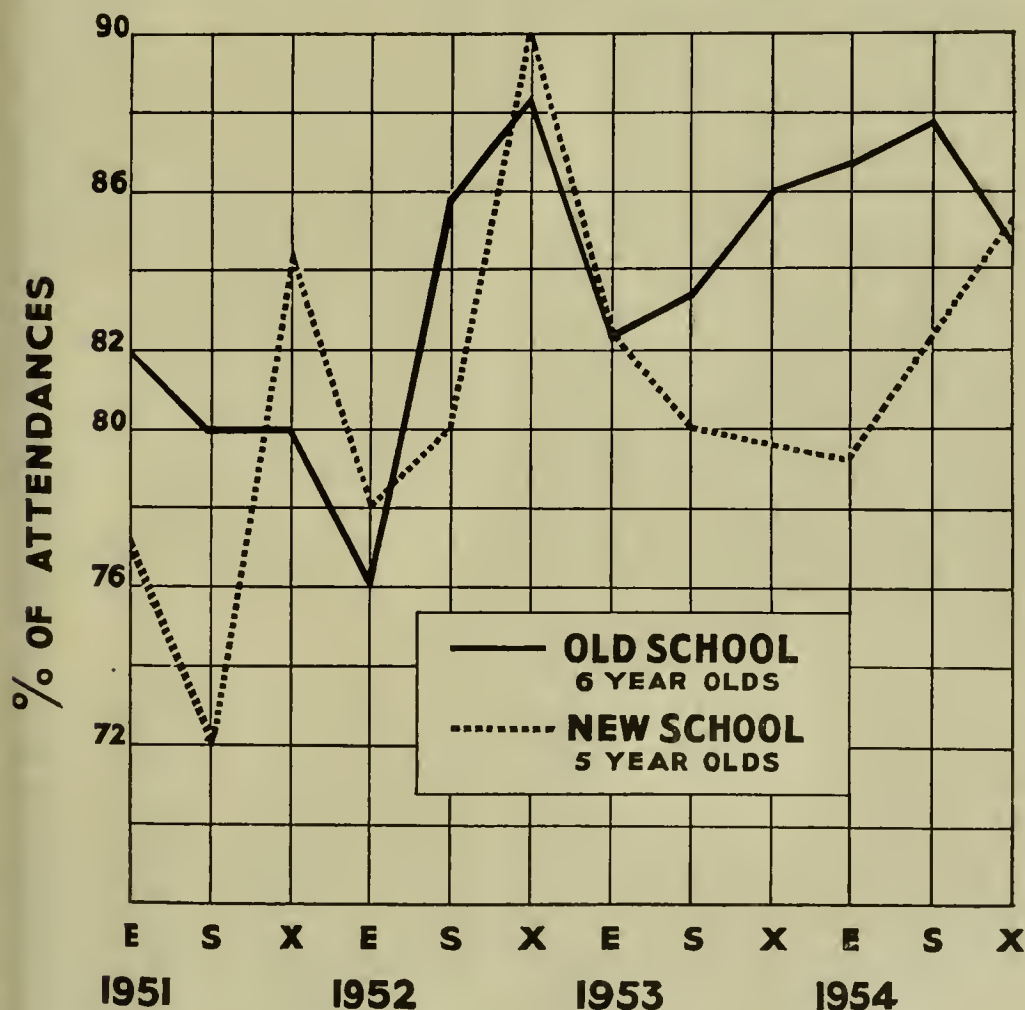
At this school, new premises were erected in November, 1950, and these are situated at about a quarter of a mile or so from the old school building. Both departments continued to operate under the same headmistress. The school is in a very good residential district on the outskirts of the City, where there has been a uniformly high standard of parental care for many years. It happens that the domestic arrangements of the school are such that a child at entry at the age of five attends the new school for about twelve months, and then moves over to the old school. It was, therefore, decided to compare the attendance record of the children



in their first year in the new school with children in their second year in the old school. The following table gives a summary of the attendances by terms for four complete years, and refers to two classes in the old school and two in the new school.

Term	Six-year-olds Old School			Five-year-olds New School		
	Attend- ance	Possible	%	Attend- ance	Possible	%
Easter 1951 ...	4,476	5,440	82.3	4,621	5,960	77.5
Summer 1951 ...	10,120	12,660	79.9	7,989	11,050	72.3
Christmas 1951 ...	8,098	10,130	79.9	6,396	7,540	84.8
Easter 1952 ...	6,965	9,230	75.5	6,810	8,840	77.0
Summer 1952 ...	8,710	10,190	85.5	8,405	10,450	80.4
Christmas 1952 ...	10,763	12,150	88.6	8,613	9,520	90.5
Easter 1953 ...	7,004	8,470	82.7	6,860	8,320	82.5
Summer 1953 ...	9,855	11,850	83.2	8,634	10,780	80.1
Christmas 1953 ...	10,369	12,030	86.2	9,266	11,620	79.7
Easter 1954 ...	9,171	10,610	86.4	8,172	10,330	79.1
Summer 1954 ...	9,177	10,470	87.7	8,225	10,020	82.1
Christmas 1954 ...	10,460	12,350	84.7	9,299	10,910	85.2
1951, 1952 ...	49,132	59,800	82.2	42,834	53,360	80.3
1953, 1954 ...	56,036	65,780	85.2	50,456	61,980	81.4
1951-1954 inc. ...	105,168	125,580	83.7	93,290	115,340	80.9

Above differences are highly significant, but the differences for the various terms are not consistently in favour of the new school, and results would, therefore, have to be interpreted with caution.



It will be seen at once that there is no consistent difference in favour of one group. On summarising the numbers by years, it is apparent that the six-year-olds attend better than the five-year-olds, but this is what, I think, anyone would expect, the difference being highly significant. It is a common experience that when a child first comes to school from the sheltered environment of his home he is often assaulted by the organisms of the larger group of children with whom he comes into contact, and usually spends a fair time of the first year of school life recovering from colds, other upper respiratory infections, and other infectious conditions. However, I do not think that the difference in the attendance rates would have been expected to be nearly three per cent. The difference in the attendances in the terms are not consistently in favour of the new school and it is impossible to say that the new school is necessarily having a beneficial effect on the life of the children compared with the old school. One feature which deserves special mention is the fact that in the summer of each year the differences in the percentage of attendance are greater than the mean difference, namely, 3.1, 5.1, 5.6 and 7.6. It was a little puzzling to know why this should be so, since the summer months are those when children would be expected to be most free from infectious disorders, and in which one would expect that the five-year-olds would be more likely to attend in the better conditions that obtain at the new school than the six-year-old children who attend the old school. However, the explanation of the Head of the school to account for this is an interesting one, that this class of parent frequently keeps the younger child from school for half-day or whole-day trips in the summer. By the time the child is older, the parents are more conscious of the need for him to learn, and rarely withdraw him in the summer term for this purpose.

This experimental investigation was continued when it became known that the seven-year-old children were divided quite arbitrarily between the old and the new schools, although the room at the old school was not as large as that in the new school, and therefore could not take as many children. This fact gives extra point to the result which was obtained. The following table and graph show the percentage of attendance for the same periods as that in the original investigation. Miss Duncan, Records Officer to the Health Department, has come to the conclusion that the overall difference between the two classes is highly significant ( $P = <0.001$ ) in favour of the new school. It seems, therefore, that the physical conditions in which the children work in school have a strong bearing on their health and consequent attendance at school. The significance has been worked out for the different terms and the most significant terms are—Easter 1952, Christmas 1953 and Easter, Summer and Christmas 1954.

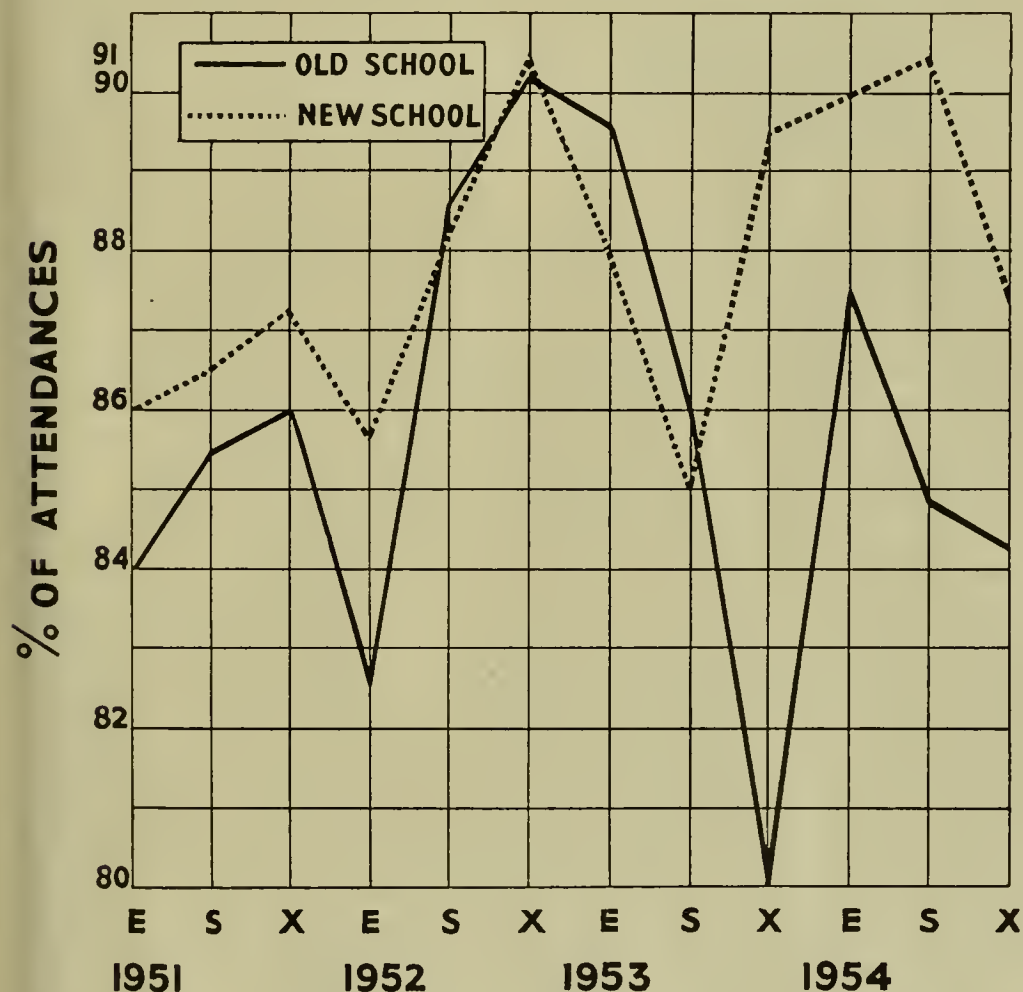
<i>Term</i>	<i>Seven-year-old Children New School</i>			<i>Old School</i>		
	<i>Attend- ance</i>	<i>Possible</i>	<i>%</i>	<i>Attend- ance</i>	<i>Possible</i>	<i>%</i>
Easter 1951 ... (9 weeks)	2,843 av. per week	3,310 367.9	85.9	2,273	2,710 301.1	83.9
Summer 1951 ... (10 weeks)	5,425	6,270 627	86.5	5,641	6,610 661	85.3
Christmas 1951 ... (15 weeks)	5,216	5,970 398	87.4	4,292	4,980 332	86.2
Easter 1952 ... (13 weeks)	4,408	5,150 396.2	85.6	3,729	4,520 347.7	82.5
Summer 1952 ... (13 weeks)	4,666	5,280 406.2	88.4	4,278	4,830 317.5	88.6

## Seven-year-old Children

Term	New School			Old School		
	Attend- ance	Possible	%	Attend- ance	Possible	%
Christmas 1952	5,481	6,030	90.9	5,800	6,390	90.8
(15 weeks) ... av. per week		402			426	
Easter 1953	3,562	4,050	88.0	2,515	2,810	89.5
(11 weeks) ...		368.2			255.5	
Summer 1953	4,445	5,230	85.0	3,234	3,770	85.8
(14 weeks) ...		373.6			269.3	
Christmas 1953	6,130	6,860	89.4	2,661	3,370	79.0
(16 weeks) ...		428.8			210.6	
Easter 1954	4,907	5,460	89.9	2,669	3,050	87.5
(13 weeks) ...		420			234.6	
Summer 1954	4,915	5,400	91.0	2,416	2,850	84.8
(12 weeks) ...		450			237.5	
Christmas 1954	5,576	6,390	87.3	3,432	4,070	84.3
(16 weeks) ...		399.4			254.4	

The overall difference between the two schools is highly significant ( $P = < 0.001$ ).

## 7 YEAR OLD CHILDREN



One slight complicating factor that may account for some of the difference in the autumn term of 1954 was that workmen from the City Engineers Department were engaged for some weeks in digging across the playground for the purpose of putting down a sewer. This may have had the effect of parents keeping their children home for relatively trivial ailments because they were disturbed at the state of the playground.



**DEATHS OF SCHOOL CHILDREN**

A.L.S.

The following table gives the figures of deaths occurring amongst school children during the year and has been provided by the Health Department from the returns of the Registrar General. The figure is somewhat lower than last year, 22 compared with 27 and it is gratifying to note that there has been a reduction in the number of road accidents reported. The figures correspond to a death rate of 0.35 per thousand school children.

<i>Cause</i>				<i>Boys</i>	<i>Girls</i>
Tuberculosis (non-pulmonary)	...	...		1	—
Chronic pneumonitis	...	...	...	1	—
Intestinal obstruction	...	...	...	1	—
Nephritis	...	...	...	—	1
Asthma	...	...	...	—	1
Cerebral aneurism	...	...	...	1	—
Cancer	...	...	...	—	1
Acute streptococcal meningitis	...	...	...	—	1
Rheumatic carditis	...	...	...	1	—
Leukaemia	...	...	...	—	1
Broncho pneumonia	...	...	...	—	1
Poliomyelitis	...	...	...	1	—
Streptococcal septicaemia	...	...	...	1	—
Congenital malformation	...	...	...	—	1
Chicken pox	...	...	...	1	—
Road accidents	...	...	...	2	1
Other accidents	...	...	...	2	2
				—	—
				12	10
				—	—

**DENTAL CLINICS**

W. H. B. Stride

The dental staff remained at 7 full-time dental officers until July, when it was reduced to 6 by the retirement of Mrs. Bentz who had been a valued member of the staff for the past 24 years and whose work had been very much appreciated. The staff position has continued to be very difficult, and in spite of many efforts it has not been possible to do very much towards bringing the dental staff to full strength. Towards the end of the year, however, Mr. J. D. Rees, L.D.S., who was previously on the Authority's staff, agreed to return to the Authority's service and he is taking up duty on 3rd January, 1955. Private practice is still proving by far the greater attraction to the newly qualified practitioner, and so far as established practitioners are concerned, the salary scale and conditions do not seem to be sufficiently elastic to allow a starting point on the scale commensurate with their experience. It should be within the discretion of the authority to make an appointment at any point on the scale where an applicant has had many years of previous experience. If, in addition, the same control could be exercised over newly qualified dentists as is exercised in the case of newly qualified doctors, and dentists could be called on to do one year in public health work before going into private practice, it would go some way to solving the problem, but it might be necessary to educate public opinion in the matter first. The school population has increased to 63,575 and for the time being we have only the equivalent of 8 full-time dental officers to deal with the amount of work involved. Though facilities exist under the National Health Service Act for parents to obtain free dental treatment for their children, most parents much prefer to bring their children to the school dental clinics.

The number of sessions given by part-time practitioners during the year was 945, this being nearly the equivalent of 2 full-time officers.



Mr. Hazell still continues to give three sessions a week by arrangement with the Regional Hospital Board. The loss of a full-time dental officer half-way through the year has reduced the number of children inspected to 32,721, as against 40,917 last year, and 19,531 received treatment during the year, as against 23,759 in 1953. In addition 728 nursery school children were inspected and 208 received treatment.

The work of Miss J. E. Wells, the oral hygienist, has continued and 725 children have been treated during the year. The results are seen in the improved condition of the children's mouths and the increasing interest that is shown by them in the regular brushing of their teeth. One is amazed to find how many parents never teach their children to brush their teeth at night but leave it to the child to do it or not as he pleases, and this seems to mean that it is left to be done hurriedly during the early morning rush. It is becoming increasingly necessary for Miss Wells to spend more time at the various branch clinics in the City so that appointments can be made for children at the clinic convenient to their homes or schools, and this is working very well.

During the year 225 X-rays have been taken for orthodontic diagnosis, difficult extractions, buried roots, etc., for children, and 39 for mothers.

Dentures have been supplied to 69 school children during the year—usually because a single tooth has been lost owing to an accident or in a few cases to replace an unsaveable tooth owing to gross caries. In addition seven dentures have been repaired.

The arrangements commenced in October, 1947, whereby a number of Bristol school children are inspected and treated by the Department of Children's Dentistry at the Bristol Dental Hospital were continued during the year.

The figures relating to the children dealt with at the hospital in 1954 are as follows :

Number of cases inspected	...	...	...	...	869
Number needing treatment	...	...	...	...	722
Number of new cases treated	...	...	...	...	250
Number of others treated	...	...	...	...	927
Total attendances	...	...	...	...	1,177

### Orthodontic Clinic

The arrangements for children requiring orthodontic advice and treatment which have been described in previous Reports have continued at the Central Health Clinic during the year. Children are seen by an orthodontist from the Bristol Dental Hospital, who attends at the Central Health Clinic on one session per week for the purposes of diagnosis ; any children requiring fixed or removable appliances are referred by the orthodontist to the Dental Hospital for treatment. Details of the work of the diagnostic orthodontic clinic during the year are as follows :—

Number of new patients	...	...	...	...	559
Number of attendances	...	...	...	...	921
Number referred to Dental Hospital	...	...	...	...	367
Number completed	...	...	...	...	66

At the beginning of the year, Miss D. M. Y. Campbell was appointed Senior Registrar to the Orthodontic Department of the Dental Hospital. As a result of this increase of staff the waiting list has been reduced considerably.

During the year 427 patients were taken on for orthodontic treatment at the Dental Hospital. The waiting list in terms of waiting time was reduced in non-urgent cases from about two years to three months. This shortening of the waiting time is likely to be maintained.

EAR, NOSE AND THROAT SERVICE

G. R. Scarff

Aural Clinics

During the past year the number of children suffering from aural defects attending the Clinic was 303 (including 4 pre-school cases and 5 nursery cases).

Out of a total of 240 new cases of middle ear suppuration found at school medical inspection, 92 failed to clear up with a few weeks' routine treatment at the minor ailment clinic and were therefore referred to the aural clinic. Only 25 of these cases were outstanding at the end of the year (18 attending for treatment, 2 absentees and 5 having left school).

The E.N.T. ward at Ham Green Isolation Hospital was re-opened in August and since then cases have been dealt with there as well as at the other general hospitals. This has meant that there has been a very considerable reduction in the number of cases waiting for operation, with the result that the waiting list is now within manageable proportions.

EMPLOYMENT OF CHILDREN

L. A. Tavener

During the year ended 31st December, 1954, 12 children were medically examined and found to be fit to be employed in entertainments.

Appointments were made for 832 children to be medically examined as prospective employees. Of these 814 were certified fit, and 2 unfit, while 16 failed to keep appointments for examination and registration for employment was refused.

Employment was divided into the following categories :—

<i>Trades</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Newsagents ... ..	636	46	682
Butchers ... ..	20	—	20
Grocers ... ..	24	1	25
Dairies ... ..	2	—	2
Bakers ... ..	1	—	1
Greengrocers ... ..	5	—	5
Ironmongers ... ..	2	—	2
Multiple stores ... ..	—	68	68
Libraries ... ..	—	2	2
Others ... ..	2	5	7
TOTAL ... ..	692	122	814

J. E. Kaye  
S. W. W. Terry**ENURESIS CLINIC**

The work of the Enuresis Clinic was continued during the year, five sessions being devoted to it each week.

Altogether, 330 children attended the clinic. Of these, 73 were discharged free from symptoms of enuresis, 11 were referred to Dr. Barbour at the Child Guidance Clinic because they presented problems that needed expert help and guidance, and the relatively large number of 67 have failed, repeatedly, to keep appointments. Fortunately many of this last group made early and promising progress, but we have not been able, despite many invitations, to "follow-up" these children. At times, however, we meet the parent and/or the child at school or one of the clinics and learn that either enuresis has ceased to be a problem with the child, or perhaps that some illness in the family has prevented regular attendance. In not a few cases, however, the non-attendance has been attributed to the child's mother becoming pregnant again, or that the family had moved to a new house, so that the longer journey to and from the Clinic occupied too much of either the morning or the afternoon, thus interfering with household duties, particularly the preparation of meals. There are, of course, failures; the reasons are many, and judging from particular case histories, these are in the main easy to understand, due possibly to the transmission from generation to generation of unsatisfactory and inadequate emotional adjustments, the parents in their turn being unable to help their children.

At the end of the year, 166 children were still attending the clinic, 55 girls and 111 boys. Their age distribution is given below :—

Age	Under 5	5—	6—	7—	8—	9—	10—	11—	12—	13—	14—	15+	Total
Boys ...	3	12	17	23	10	4	11	12	10	3	3	3	111
Girls ...	2	5	13	5	5	6	4	5	5	4	—	1	55
Total ...	5	17	30	28	15	10	15	17	15	7	3	4	166

**EYE CLINICS**

R. R. Garden

In 1954, the total number of refractions completed was 4,928. This included 4,918 cases referred from Primary, Secondary Schools, and Special Schools, and 10 from Nursery Schools. In 927 cases, spectacles were not considered necessary, but a number of these is kept under observation in case of developments. Glasses were ordered for 2,583 children (6 from Nursery Schools), and by the end of the year 2,354 had been obtained.

The number of refraction and special consultation sessions held was 510, the latter being for the purpose of examining and advising on complicated conditions, and for the certification of those requiring education by special methods.

In regard to the eye conditions which need investigation and treatment beyond the scope of refraction clinics, close liaison is maintained with Bristol Eye Hospital, to which every year a considerable number of children is referred. This applies especially to those recommended for



orthoptic treatment of squint, for which a clinic was established there in the pre-war period, through co-operation between the Hospital Board and the Education Committee. Although primarily intended for Bristol school children, there have been increasing demands on the orthoptic services lately by the Hospital's own out-patient department, and the staff of the clinic is now insufficient to keep up with the volume of work. It is becoming obvious that additional facilities are required especially for the supervision of children with squint in its early stages, and those with amblyopia. For preventive work of this kind, a few sessions a month spread over the various eye clinics would suffice, but probably the School Health Service should now have its own orthoptist, with a fully equipped clinic, preferably at the Central Clinic, to which cases of squint could be referred from our refraction clinics for further investigation, treatment and follow-up.

The surgical correction of squint is carried out at the Eye Hospital, and 63 operations for this were completed last year on school children of the City.

## **HANDICAPPED CHILDREN AND SPECIAL SCHOOLS A.L.S.**

### **Blind Children**

There were 17 Bristol children attending the Royal School of Industry for the Blind at the end of the year—11 boarders (eight boys and three girls) and six day pupils (four boys and two girls). One girl was also being maintained at the Royal Normal College for the Blind, Shrewsbury, and one girl at the Sunshine House Nursery at Leamington Spa. There are a few cases of retrolental fibroplasia now being admitted to the Blind School and cases of this kind may well increase the number of children who have to be accommodated at the School for the Blind during the next few years.

### **Partially Sighted Children**

There were 15 children (12 boys and 3 girls) on the registers of the unit for partially sighted children at South Bristol Open Air School at the end of the year. In addition three children (two boys and one girl) were being maintained at the end of the year at the West of England School for Partially Sighted Children at Exeter, and two severely partially sighted girls at Chorleywood College for Girls, Hertfordshire. Increasing attention is being paid to the group of partially sighted children at the Open Air School. A psychologist visits periodically and Mr. Garden, the Authority's Ophthalmic Consultant, has visited the school to advise on the provision of visual aids for the children. In consequence six aids have been supplied to the school and are now in use. Not all partially sighted children can profit by visual aids and the use of them does restrict the activity of the child in the classroom. Some children never seem to be able to master the use of them while for others they have been found for no particular reason to be of much assistance. In general the need for the attendance of children at this unit is a combined defect of poor vision and backwardness and ineffective adjustment to the disability. Wherever possible children with this disability are kept in the ordinary school, and this is particularly so in the younger ages where the child of five or six years of age can quite easily manage in an ordinary infants' school. At this age the long journey to the partially sighted unit each day can be a considerable physical stress.



## Deaf Children

The alterations to the premises at Elmfield School for the Deaf which I mentioned in the Report for 1953 had not been commenced by the end of the year, but it is hoped to make a start early in 1955. When the additional accommodation is available it should be possible to provide for the needs of all Bristol deaf children and also to offer one or two places to the surrounding county areas, for deaf children living on the borders of the City.

The number of children on the registers at the end of the year was 56 (28 boys and 28 girls), including one boy and one girl from other Authorities. Of these, four boys and two girls are severely partially deaf. There were also eight children being maintained at various residential schools as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Mary Hare Grammar School, Newbury ... ..	—	1	1
Mill Hall Independent School, Cuckfield, Sussex	—	1	1
Royal School for the Deaf, Birmingham ... ..	2	2	4
West of England School for Deaf Children, Exeter	—	1	1
St. John's Institute, Boston Spa ... ..	1	—	1

Probably one of the most pleasing features of the healthy progress of the children at Elmfield school is the result of attention being given by the physical education specialists. The grounds of the school are well adapted for outdoor activities in good weather and these activities have been adequately recorded in a colour film by Miss Cooke, the Senior Woman Organiser of Physical Education.

## Partially Deaf Children

Partially deaf children are catered for in various ways. Some of the severely partially deaf children are attending the day special school at Elmfield, and a few are at residential schools in various parts of the country. A number of less severely handicapped children are able to continue at the ordinary schools and are visited by Miss R. H. Sturman, the peripatetic teacher of the deaf, whose report follows.

Miss Sturman is concerned in the matter of inducing the children to become accustomed to using hearing aids as well as giving lip reading tuition to these children in the ordinary schools. The type of hearing aid available for children has been the subject of some concern. The transistor types of hearing aid have now been on the commercial market for some three years and the Minister of Education promised in July, 1953, that children were to be given priority in the supply of the new type aids when they became available. These are still not forthcoming and there appears to be a minimum prospect in the near future of partially deaf children benefiting by the new type of hearing aid, which is of course much lighter and more robust than the old valve type.

At the end of the year, in addition to the six partially deaf children at Elmfield, the following partially deaf children were being maintained at residential schools :

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Tewin Water Residential School for Partially Deaf Children, Herefordshire ... ..	2	—	2
Ovingdean Hall Residential School, Brighton ...	2	1	3

The arrangements whereby a teacher of the deaf visits schools to give lip reading tuition to partially deaf children mentioned in the report for 1952, were continued during the year. From the original list of 27 partially deaf in schools for hearing children, visited regularly by the peripatetic teacher of the deaf, 22 names were carried forward into 1954, and during the year 12 new names were added. One was removed from the list in March on attaining school leaving age, and another in July as no further special help was needed, leaving the total at the end of the year at 32. These, together with four others with slight hearing loss but not at present needing help, are having half-yearly audiometric tests and medical inspection and reports on their school work.

The 32 children (17 boys and 15 girls) for whom lip reading tuition was being given at the end of the year were in various schools as follows :—

Infant schools	...	...	...	...	3 (in 3 schools)
Junior mixed	...	...	...	...	15 (in 14 schools)
Secondary modern	...	...	...	...	13 (in 7 schools)
Grammar School	...	...	...	...	1 (in 1 school)

Hearing aids have been supplied for those whom it is thought would benefit from them and training in using them is being given. The following notes on some of the children recently taken for lip reading tuition may be of interest :—

- B.J.* age 14 Is receiving instruction in lip reading and is making progress.
- J.A.* age 6 Is learning to use her aid but finds it very cumbersome. A monopack aid would be more suitable for such a small child. Is giving spontaneous though imperfect speech. Has the disadvantage of deaf mute parents.
- R.L.* age 10 Has taken a violent dislike to hearing aids because an older brother made fun of him. His resentment is however gradually being overcome and he now wears it for part of his weekly lip reading period. He should do well when he realises that he can overcome his deafness handicap.
- J.T.* age 7 Has poor speech due to hare lip and poor mentality rather than a marked degree of deafness. A successful operation on his lip has helped him and he is now improving in speech. He does not appear to need an aid.
- V.C.* age 14 Deafness is not her only handicap. She has the very minimum of language and practically no understanding of the meaning of it. She is now beginning to use sentences instead of solitary words. Is making progress in self-control.
- D.E.* age 7 Started weekly lessons in lip reading in December. Should be able to keep up with school work with this help.
- D.G.* age 16  
(Grammar School) Has recently been supplied with hearing aid and commenced lip reading instruction. Working for general certificate examination in July. Will be able to overcome his handicap of deafness by combined lip reading and hearing.

**Hearing Assessment Clinic**

M. Sharwood

This Clinic which was commenced in September 1952 is held on the last Monday afternoon of each month at the General Hospital and continues to fulfil a useful purpose.

The main aims in view are :—

- (a) Ascertainment of deafness and partial deafness, with recommendation for suitable type of education.
- (b) Investigation of "Speech Defectives" in which deafness is not the major cause of lack of speech or of defective speech.
- (c) Ascertainment of the child's mental ability and of his general behaviour.
- (d) Advice to parents in the general training and handling of their deaf or partially deaf child.

*Summary of the Cases Referred to the Clinic During the Year*

Number : 12 (6 boys, 6 girls).

Bristol children : 7.

Other children : 5 (from Wiltshire, 1 ; Somerset, 1 ; Gloucester, 2 ; South Devon, 1)

Age range : 2·3 years to 7·6 years.

Cases have been referred by hospitals, private doctors and Heads of Schools through the School Health Service.

**Types of Cases Seen**

- 1. Deaf children.
- 2. Partially deaf children.
- 3. Cases of acquired deafness e.g. T.b. meningitis.
- 4. Speech defectives—major cause not deafness, e.g. :
  - (a) Low mental ability.
  - (b) Aphasia.
  - (c) Emotional disturbance.
  - (d) Birth injury.
  - (e) Child maladjustment.

**Recommendations Made**

- (i) *Deaf children*
  - (a) Home training in pre-school years.
  - (b) Attendance at Nursery School for Deaf.
- (ii) *Partially deaf children*
  - (a) Attendance at School for the Partially Deaf.
  - or (b) If possible, attendance at a school for normal children with the help of a hearing aid and visiting teacher of the deaf.
- (iii) *Meningitic children*
  - Education treatment to promote child's rehabilitation through lip-reading and speech therapy.
  - Later special educational treatment at a school for the partially deaf.



(iv) *Speech defectives*

Cases to be referred for :

Speech Therapy.

Attendance at a Child Guidance Clinic.

Special educational treatment (E.S.N. School).

Some of the cases are referred for re-test in six months.

The following case has been selected to illustrate one of the problems of speech and hearing in children :

S — Seen at Hearing Assessment Clinic at age of four years. Referred from Bristol Children's Hospital.

*Medical history*

Twenty-four hours after birth developed respiratory and pharyngeal infection. At six months of age was exceedingly ill with pneumococcal meningitis. Has had German measles and scarlet fever. Has severe catarrh. Hearing affected, was wearing hearing aid when seen.

*Test for hearing*

Appeared to be intelligent, but was not easy to test as she became very interested in the test material offered her, and started to use it for building, etc. It was possible, however, to ascertain that she has some hearing and that an aid appears to help her. She can say some words that are intelligible, but her vocabulary is limited.

*Educational treatment*

Recommended that she be given a trial in a nursery class with normal children and that she be admitted as soon as possible. After she has settled, to be under the supervision of the Bristol peripatetic teacher to the partially deaf. Case to be reviewed in three months' time with reports from Head of school and teacher of the partially deaf, when it is hoped that a more exact diagnosis may be obtained.

It is possible that S — may have to be considered for special educational treatment.

**Educationally Sub-normal Children**

A.L.S.

The Authority's day special school provision for E.S.N. children is as follows :—

Russell Town (Senior Boys)	...	...	...	140 places
The House-in-the-Garden (Senior Girls)	...	...	...	100 places
Newfoundland Road (Junior Mixed)	...	...	...	80 places

The schools have been fully occupied throughout the year but for the first time it is gratifying to record that there is no waiting list for the two senior schools, and for the junior school the waiting list is the lowest of recent years. The accommodation at the House-in-the-Garden School is very good indeed, and in fact ideal for this type of girl. The accommodation for the senior boys is adequate, but it is expected that some time in the future a move will have to be made to more satisfactory surroundings where it will be possible, in addition to the present curriculum of handicraft subjects, to include gardening and other outdoor activities. At the junior school it is now distinctly possible that the school will be able to move to better and more commodious premises next year. It is expected that this school will be accommodated in a house on the outskirts



of the city, which is at present being used for primary school children from the surrounding housing estate. These premises will provide for an additional 20 children, which will, it is hoped, enable the waiting list for junior children who have been ascertained as educationally sub-normal to be abolished.

The "Diagnostic Unit" which was established in 1953 and which was described in my Report for that year continues to function in a satisfactory manner. The purpose of the unit is to find out the true worth of the child and his educability. Very often if the position does eventually arise that the child has to be referred to the Local Health Authority as ineducable the parent may have to be won over to accept the new situation. Alternatively the parent may actively protest against such a proposal. This results in a rather slow turnover of cases admitted to the Diagnostic Unit. It is, however, considered essential that these children should be given an opportunity in an educational environment before being referred as ineducable.

### Special Classes in Ordinary Schools

Special classes for educationally sub-normal children have now been established in the following schools :—

Novers Lane J.M. & I.	...	...	...	...	2 classes
Shirehampton J.M. & I.	...	...	...	...	1 class
Embleton J.M.	...	...	...	...	1 class
South Street J.M.	...	...	...	...	1 class
Easton Road J.M. & I.	...	...	...	...	1 class

Some of these classes are officially recognised as such and others are small groups in the ordinary school which it has been possible to provide by reason of special circumstances. Some of the schools in the older parts of the town are losing pupils because of the movement of population to the new housing estates on the periphery of the City, and in these schools it is sometimes possible to arrange a small class for E.S.N. children. Conversely the schools on the periphery are usually over pressed for accommodation for the small groups which are so necessary in the case of the E.S.N. child. The recommendations of the doctors are liable to be influenced by the facilities available for E.S.N. children in the district where the child resides. Where the conditions in the school are over-crowded he is very likely to make a recommendation in favour of the special school as compared with the child in a school which is not so over-crowded. In two secondary modern schools special classes exist, although they are not officially recognised as such, and small groups are available in most schools for dealing with backward pupils. It is noteworthy that in an area where there are officially recognised special classes in primary schools there is a much better appreciation of the problem in the secondary modern school. A particular difficulty sometimes arises because of the failure of the parent to distinguish between special classes in an ordinary school and a special school. Here the doctor is sometimes asked to make a recommendation in the light of existing information from the psychologist and teachers, and the parent may dispute a decision to send the child to a special school. No firm decision has yet been reached by this Authority on the form of compulsion to be exercised on parents in this sort of situation. All methods of persuasion are used to get the parents to agree with the recommendation of the Authority, without recourse to the law.

## Residential Special Schools

The Authority's school at Kingsdon Manor for senior boys has recently been extended and now provides accommodation for 60 boys. At the end of the year there were 56 boys on the registers, including five from other Authorities. The girls are accommodated at Croydon Hall School, near Washford, and 41 girls were on the registers at the end of the year, including 13 from other Authorities. For special reasons a small number of E.S.N. children are placed at independent schools and at the end of the year 21 children were being maintained in such schools as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Spring Hill School, Ripon ... ..	1	—	1
Besford Court R.C. Residential School, Worcestershire ... ..	4	—	4
St. Christopher's School, Bristol (Day Pupils) ... ..	9	1	10
St. Christopher's School, Bristol (Resident Pupils) ... ..	2	1	3
The Sheiling Curative School, Ring- wood ... ..	—	1	1
The Sheiling Curative School, Thorn- bury Park ... ..	1	—	1
Crowthorn Special School, Edgworth, Lancs. ... ..	1	—	1

During the year 67 children were referred to the Local Health Authority for the purposes of the Mental Deficiency Acts ; 35 under Section 57(3), 2 under Section 57(3) and (4), and 30 under Section 57(5) of the Education Act, 1944. In addition 53 educationally sub-normal children who left school during the year were referred to the After-Care Officer for Handicapped Children for supervision after leaving school. Thirty-two of these children had been attending special schools and 21 had been attending special classes in ordinary schools.

Most of the pupils leaving special schools for E.S.N. children and some of the children from ordinary schools are seen with their parents at the conference attended by the School Medical Officer, the Psychologist, the Head of the school, and representatives of the Youth Employment Service, the Mental Health Service and, where necessary, the Children's Department. In the case of children from ordinary schools where all concerned are in agreement that no supervision is necessary, the child is not brought before the conference. If, however, there is one person who has seen the child who is at all doubtful about the need for supervision, the case is presented to the conference for opinion.

## Delicate and Physically Handicapped Children

B. J. Boulton

### *Periton Mead Residential Open Air School*

There have been no important changes in the arrangements at this school during the year. The additional accommodation at the school has in general been fully utilised, though owing to an exceptionally large number of discharges at the end of the summer term there was for a time a small number of vacancies remaining unfilled.

In a number of cases recommended by various agencies for admission to the school there is rather more a social reason than a medical one and not infrequently where the home conditions are bad this is the primary reason for the recommendation. About one in every five of the children





Croydon Hall  
Residential School



In School





Dancing in the  
Common Room



Sewing Lesson



The best girls can  
paint in oils



recommended for admission is found to suffer from enuresis, either persistent or occasional, and in our experience at this school less than half of them show any improvement within the period of a term of approximately three months.

The number of children on the registers at the end of the year was 56 (24 boys and 32 girls).

### *South Bristol Open Air School*

#### *Delicate children*

There have been no important changes in the organisation of this section of the school during 1954, and the two classes for delicate children have been full throughout the year. From the weather point of view the year was a poor one and due to the many wet and sunless days during the summer, outdoor lessons and other activities were considerably curtailed. There has been a greater demand during the year for places for children in the senior age group. At the end of the year there were 56 children (30 boys and 26 girls) on the registers of this section of the school.

#### *Physically Handicapped Children*

As I mentioned in the report for 1953, the question of providing additional accommodation for severely handicapped children, mostly those suffering from poliomyelitis, has been under consideration. Certain minor structural adaptations to the school have been made and the accommodation reorganised to provide three classes for physically handicapped children of about fifteen each, instead of two classes of about twenty each. With the re-arranged accommodation, it has now been possible to provide better facilities for medical inspection and to make available a physiotherapy room properly equipped with up-to-date apparatus for exercises and electrical treatment. A physiotherapist was appointed in November to give an additional three sessions per week at the school so that physiotherapy is now given on one session each day. This results in a great saving of time and in transport in the case of those children who were previously treated at hospitals or at the Central Health Clinic. A steady demand for places in this section of the school continues, particularly from children severely affected by poliomyelitis, and as the annual discharge rate is low (many of the more seriously handicapped children remaining at the school until the end of their school lives) it is probable that the question of accommodation for this type of handicapped child is one which will need further consideration in the future.

Additional transport has been provided for these severely handicapped children who are unable to travel on the school coach service. There are now three hired cars used each day to take the children to and from their homes and school.

There were 44 children (25 boys and 19 girls) on the registers of the classes for physically handicapped children at the end of the year. In addition there were five children (two boys and three girls) being maintained at various residential special schools for physically handicapped children at the end of the year as follows :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
St. Rose's R.C. School, Stroud ...	—	1	1
Hinwick Hall School for Boys, Wel- lingborough ... ..	1	—	1
Lord Mayor Treloar's School, Alton ...	—	1	1
Halliwick School for Girls, Winchmore Hill ... ..	—	1	1
Hurst Lea School, Kent ... ..	1	—	1

A fair number of problems arise about severely handicapped children on which the school medical officers feel in need of advice, and arrangements were made for Mr. H. Keith Lucas, F.R.C.S., to visit the school once a term and give advice. Although the children may be patients of any one of the five orthopaedic surgeons in the city the advice of Mr. Lucas has been extremely useful in many ways such as alterations to splints, or recommending children to return to their consultants for further advice or treatment, and making suitable recommendations for the employment or further training of children on leaving school. This is one of the most useful arrangements that has been made.

## Home and Hospital Teacher's Service

L. S. F. Bone

Throughout the year the two peripatetic teachers engaged in this work continued to give lessons in the homes of those children of the City who, although of school age, for physical reasons were excluded from school for long periods. In addition, a number of children who were considered fit enough by the medical officers, were taught for varying lengths of time in the hospitals of the City.

Owing to the serious illness of one of the teachers in the early part of the year, some considerable disorganisation was occasioned but despite this a total of approximately 1,544 individual teaching visits was made to the home-bound children while, in addition, 49 lessons, involving 26 sessions, were devoted to patients of school age in hospitals.

At 31st December, 1954, there were 22 home-bound children receiving school lessons in their homes, 12 boys and 10 girls. Fifteen were of primary school age and 7 secondary. During the year 11 boys and 10 girls were added to the home tuition list while 14 boys and 11 girls were removed. The reasons for removal were as follows:—

	<i>Boys</i>	<i>Girls</i>
On reaching school-leaving age ... ..	1	2
Admitted or returned to ordinary schools ...	4	5
Admitted to grammar schools ... ..	—	1
Admitted to Claremont School for Spastics ...	3	1
Admitted to other special schools ... ..	4	1
Admitted to hospital ... ..	1	1
Tuition ceasing on medical advice ... ..	1	—
	<hr/> 14	<hr/> 11
	<hr/>	<hr/>

The parents of the home-bound children continue to give their hearty co-operation almost without exception and a visit from the teacher is eagerly anticipated by both parents and children. The number of visits to the individual child each week must of necessity depend upon the total number of children on the list but it is usually possible to arrange for three visits each week for each child.

Finally, I wish to express my sincere appreciation and thanks for the sustained enthusiasm and conscientiousness of the two teachers engaged in this work. The work is often most trying and travelling to every part of the City, especially under some of our weather conditions, entails a strain both mental and physical. These two teachers deserve high praise.

A.L.S.

Some of the children who were home-bound by reason of physical handicap and who were receiving home tuition have been admitted to the Open Air School, and are referred to in the report on the South Bristol Open Air School.

A few others of tender years were admitted to Claremont School when the accommodation at the school was increased. There seems, however, to be just as much call for the services of the peripatetic teachers and indeed one is conscious all the time that the home-bound children would perhaps benefit by even more time being given to them than is at present available for this service.

Through the personal interest of the Chief Inspector of Schools, Mr. T. E. Eveson, some of the children on the home tuition list now attend their local schools for varying periods, some each morning, others less frequently. The teachers and the other children in the school are most kind in their attentions to these handicapped children and if little is learned in the formal way, the visit to the school provides a welcome contact with the wider world, and a fresh interest in the child's life.

Towards the end of the year a request was received from the Bristol Children's Hospital for some additional teaching assistance. A meeting was held at the hospital to consider the teaching requirements and as a result the Authority has arranged for a whole-time teacher to be appointed at the hospital.

A small number of children at Southmead Hospital and at the Bristol Royal Infirmary who are long stay patients and who would benefit from this form of teaching are visited by the peripatetic teacher on request, though it is not possible at present to make more than occasional visits to these hospitals.

## Epileptic Children

A.L.S.

There is no real change in the number of children requiring special educational treatment because of epilepsy. The child referred to in my report for 1953 was still the subject of school attendance proceedings. The difficulty seems to be that such a length of time lapses between the first recommendation and subsequent action that the condition of the child might have materially changed in the interim. At the end of the year the following children were being maintained at residential schools for epileptic children :—

	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Chalfont School for Epileptic Children, Bucks     ...     ...     ...     ...	1	—	1
Lingfield School for Epileptic Children, Surrey     ...     ...     ...     ...	3	2	5



**SPASTIC CHILDREN****Cerebral Palsy Assessment Clinic**

Grace Woods

During the past year the Cerebral Palsy Assessment team, consisting of a doctor, a school medical officer, and a psychologist, under the direction of Professor A. V. Neale and Dr. A. L. Smallwood has continued to meet on Monday afternoons at the Bristol Children's Hospital. To date 311 cases have been seen. As defined by Courville, "cerebral palsy is a clinical state resulting from some physical insult to the motor system of the developing or immature brain." Thus the most obvious handicap from which these children suffer is a defect of movement pattern, and cases of cerebral palsy are usually classified under headings which describe the muscular condition. These headings are given below with the percentage incidence of the various types seen by the team in Bristol.

Hemiplegias	...	...	...	...	...	31.1 per cent
Paraplegias	...	...	...	...	...	8.5 per cent
Quadriplegias	...	...	...	...	...	29.7 per cent
Monoplegias	...	...	...	...	...	4.2 per cent
Athetoids	...	...	...	...	...	10.1 per cent
Mentally sub-normal (inco-ordinated children of no particular type)	...	...	...	...	...	8.8 per cent
Ataxias	...	...	...	...	...	7.6 per cent

This classification, however, gives only a gross description of the child's muscular defect. For a full assessment prolonged observation of the child's movements is necessary. An entirely erroneous picture is obtained if the child is only observed in posture. A child may be seen standing with scissor legs and feet in equinus, an overall picture of severe extension, yet, if the same child is put on the floor, he may crawl or hop in an overflexed attitude. An athetoid child may be able to walk with the arms held aimlessly, and yet be unable to roll over or crawl. With observation it is apparent that the child's arms are practically useless and although the child can walk the total handicap is a severe one. The full movement defect can be analysed by watching the child carry on the normal stage of child motor development, such as sitting up, rolling over and back, and crawling, and comparing the performance with that of a normal child. The extreme difficulties that apparently mild cases of cerebral palsy experience in balancing and co-ordinating their movements can then be appreciated; these observations supported by films have stressed the importance of considering cerebral palsy as a defect of movement patterns and not of individual muscles and the benefit of training the children to learn correctly the normal patterns of movement, such as rolling over, crawling, and very last of all, walking.

But although the child's obvious handicap is a defect in movement patterns, other symptoms of cerebral damage may be of equal or greater importance. Fits, for example, can upset a child's education and future employment more seriously than a hemiplegia. Sensory defects in the hemiplegic hand with inability to recognise, without looking, objects put in the hand, may be the true underlying reason for the child's refusal to use that hand. Inability to focus the eyes and a field of vision defect may affect the child's ability to scan a line of reading. From the standpoint of education the difficulties some of these children with brain damage encounter in copying and recognising shapes may cause a delay in the child's mastery of the three R's. Their learning difficulties are not easy to detect on a routine clinical examination and the observations of the educational





Outside Apparatus, Claremont School for Spastic Children, Bristol



Visit of Dr. Temple Fay to Claremont School for Spastic Children. 14th October, 1954.

*From left to right :—*Mr. Tom Price (Orthopaedic Surgeon Bath & Wessex Orthopaedic Hospital), Miss S. M. Hack (Physiotherapist, Claremont School), Mr. H. K. Lucas (Orthopaedic Surgeon, Bristol Royal Hospital), Dr. Temple Fay (Consultant Neuro-Surgeon, Philadelphia General Hospital), Miss M. Ram (Head of Claremont School) and Professor A. V. Neale (Professor of Child Health, University of Bristol).



psychologist and the child's teacher are invaluable in obtaining a full assessment of the cerebral palsied child. For example, the Head of our spastic school has noted the difficulty these children have in translating the 3D of ordinary vision into the 2D of pictures.

Thus an Assessment Team has to make full use of the method of "conference" as well as "observation." Much can be learnt about the child from the teacher, physiotherapist, speech therapist and occupational therapist. Also, the staff having the everyday care of the child are helped by being able to discuss the child with the hospital staff. The attendance of the more severely handicapped children at a special spastic school makes this co-operation easier.

During the past year Bristol has been visited by various experts in the field of cerebral palsy, and workers from Bristol have visited other centres and also attended the Conference on the Treatment of Cerebral Palsy arranged by the National Spastics Society. The discussions which have taken place have taught us all something more about cerebral palsy, prevented us working in isolation and have also emphasised what a large amount has still to be learnt about these children.

After a conference on cerebral palsy held in London from 28th to 30th September, at which Bristol was well represented by the workers in the field, we were fortunate, through the good offices of Professor Neale and Mr. Lucas to receive a visit from Dr. Temple Fay, the distinguished American neuro-surgeon and a noted specialist in the field of cerebral palsy. He gave a very informative address to selected workers from Bristol and neighbouring centres, and all who heard him felt extremely stimulated by his profound grasp of his subject. He was also very helpful in the clinical diagnosis of some of the children who are at the school. His photograph appears in the group shown facing page 37.

### **Claremont School for Spastic Children**

M. J. Ram

This year it was decided to extend the school to take 15 additional children, bringing our accommodation up to 30 children. Rooms on the first floor of the building were chosen to provide for the children of five years old and under; they have a nursery, cloakroom and lavatories, a small classroom and a treatment room. Minor alterations were made to the interior of the building during the summer, and the new children were admitted by twos and threes in the early autumn. It was found possible to make available a small number of places to spastic children from Gloucestershire and Somerset, and some to non-spastic but severely handicapped Bristol pupils. Finally three Somerset and two Gloucestershire spastic cases were admitted and five children with other physical handicaps from the City.

The staff was increased by a teacher, a physiotherapist, a nursery assistant and a woman to perform the duties of a house mother.

As several of the new children have speech difficulties we have made greater demands on the time of the speech therapist, and Miss Hutton now spends three mornings each week with us, with the expectation of working half-time when more speech therapy help is available in the near future.

Of our original 15 pupils, one was transferred at the age of five to an ordinary infant school, and another, after a two-year trial period, was found to be ineducable and was referred to the Mental Health Service. The others are still with us.

In September the Medical Officer and members of the staff attended a Conference on the Treatment of Cerebral Palsy, organised in London by the British Council for the Welfare of Spastics. Dr. Temple Fay, one of the American authorities on cerebral palsy, who was in England for this Conference, visited the school on 14th October. He gave a talk on his work to an invited audience and demonstrated some of his methods of treatment.

The Medical Photography Unit of the University of Bristol has made films of the activities and progress of the children at six-monthly intervals. These are invaluable for record purposes and we are greatly indebted to the University for making these facilities available. Miss C. E. Cooke, the Senior Woman Organiser of Physical Education, made arrangements for two colour films to be taken of group play and individual activities on the outdoor apparatus.

Last summer we were given permission to use the treatment bath at the Children's Hospital for an experiment in water therapy. Twice a week Dr. Grace Woods took parties of four or five children with the physiotherapist to the bath for this treatment, continuing through the autumn until the weather became too cold. The children greatly enjoyed "going swimming" and some of them seemed to derive considerable benefit from the exercises; we hope to resume these visits soon.

The outdoor apparatus has been fully utilised during the year and the children have derived much benefit and enjoyment from their activities in the open air.

Outside contacts are valuable to our children but very difficult to arrange, especially as for many of them evening activities are impossible. In the autumn term we made another link with our neighbour, Henleaze Junior School. Miss Braithwaite, Brown Owl of the School Brownie Pack, offered to come over with a party of children once a week in the lunch hour to hold a joint meeting with our older girls. The children are most enthusiastic and several are to be enrolled soon.

We hope that someone equally kind and helpful will come forward when we have some boys old enough to be Wolf Cubs.

## HEALTH EDUCATION

A.L.S

Mention was made in the report for 1953 of an experiment in health education in that year which was held at Greenway Secondary Modern School, and took the form of an exhibition, the showing of films relating to the topic, and the holding of a "Brains Trust" on the subject of "The Health and Well-Being of Southmead Children."

Following this, discussions took place between the Principal School Medical Officer and the Chief Education Officer and a "working party" consisting of Mr. T. E. Eveson, the Chief Inspector of Schools, Mr. D. M. Evans and myself, was formed to discuss the bringing of health education more effectively into the schools.



The first step was to hold a pilot course for school leavers which took place at Portway Secondary Modern Girls' School from February to April, 1954, and which is described by Mr. Evans in his report. The course ended with a "Brains Trust" session, where the girls themselves gave their impressions of the value of the course. After the success of this pilot course, further discussions took place about the applying of the purpose of the course to Secondary Modern Schools generally, and it was decided to hold a course for teachers in Secondary Modern Schools who might wish to embark on a course of this nature in their own schools. Mr. D. M. Evans, who was then Personal Assistant to the Medical Officer of Health and who has since taken up a full-time teaching post in one of the Authority's schools, was responsible for the arrangements, and was to a large extent regarded as the course tutor. His report on the two courses is given below.

Our grateful thanks are due to him, the Chief Inspector of Schools and to all who contributed to the arrangements of the course or who were in any way responsible for its undoubted success.

## **THE HEALTH AND SOCIAL SERVICES TO-DAY** D. M. Evans

*An account of a pilot course for school leavers  
which was held at Portway Secondary Modern  
School for Girls, February-April, 1954*

### **The Need**

Ignorance and apathy are twin evils which health education has to counter as barriers to social advancement. They express themselves in anti-social behaviour in matters of health or human relationships and lead directly to the complex social problems arising from avoidable disease (such as tuberculosis or food poisoning) or irresponsible behaviour (such as delinquency or crime). Many of the abuses of the National Health Service and of the social services generally are due to the same root causes, with the result that the economic impact is much greater than it should be.

Health education involves the use of educational methods to promote health knowledge (body and mind) as a preventive arm of social medicine and by its means it seeks to promote positive health with its emphasis on personal and communal responsibilities. In the view of the most thinking people "school leaving" represents a key point in life: it gives the school a last opportunity to underline its fundamental teachings before setting the young person free to face many new problems of life—employment, courtship, citizenship, marriage, family life.

In all these new problems health is a vital factor. It is essential at this stage, when social conscience and community interest are at their highest, that young persons should learn something of the health and social services: of opportunities for young people to contribute to community life (voluntary service, etc.) and to underline certain vital health principles. These were the considerations which led to the development of a pilot course for school leavers on "The Health and Social Services To-day," which was tested out at Portway Secondary Modern School for Girls, between the 11th February and the 12th April, 1954.

## Object of Course

When the course was originally planned the following considerations were foremost :—

- (i) That “ school leaving ” age represented a key point in the life of those about to leave school ;
- (ii) That it was essential that some provision should be made for girls and boys who should, at this stage, when social conscience and community interest are at their highest, learn something of the health and social services ;
- (iii) That a course should be devised which would focus the attention of the adolescent on these services and, as part of the health education activities of the School Health and Public Health Departments, underline the importance of certain health principles which are so vital to personal, family and community health ;
- (iv) This would supplement and be integrated into the normal school curriculum by the class teachers who would augment much of what was learnt at talks and discussions with outside lecturers and visits to appropriate medico-social and educational units.

## Organisation

A draft outline of such a school leavers' course was prepared to provide the basis for discussion.

After the outline scheme had been approved in principle by Dr. Parry (Medical Officer of Health and Principal School Medical Officer) and Dr. Smallwood (Senior School Medical Officer), steps were taken to gain the co-operation of the Education Department in running a pilot scheme. This, it was thought, would be valuable to assess the response of school staff and pupils to such a course with a view to extending this fundamental health and social teaching.

Conversations with the Education Department led to its approval by the Chief Education Officer and a decision to try the pilot scheme at Portway Secondary Modern School for Girls using one class of school leavers only ; the whole course to be spread over ten weeks. One day (Friday) of each week was to be set aside for this purpose, class teaching would expand the information given and a folio of work was to be maintained by the girls.

At a meeting at the school on 27th January, 1954, attended by Mr. Eveson, Chief Inspector of Schools, Miss Shewell, Headmistress, Dr. Smallwood, Senior School M.O., and Mr. D. M. Evans, Personal Assistant to M.O.H., it was decided :—

- (a) That the school leavers' course would begin on the 11th February, 1954, and be completed during the same term by 9th April.
- (b) That Mr. D. M. Evans would arrange for all speakers, visits and visual aids (films, film strips, etc.) and give advice on suitable books and pamphlets.
- (c) That Miss Shewell would arrange for 26–30 girls to be available for the course and that the class teachers (Miss Surtees and Miss

Jones) would attend all talks and visits and Miss Burt would be available for the projection of films.

- (d) Mr. Eveson to assist Miss Shewell in the provision of transport, books or projectors as required.

At a later meeting (8th February, 1954) at which Miss Shewell, Miss Surtees, Miss Jones, Miss Burt and Mr. D. M. Evans were present, it was agreed to arrange a special Parent Teachers' Association meeting to be held at the School on Monday, 12th April, 1954 (7.30 p.m.) at which folios would be displayed and the girls would be present ; a panel of the course speakers would be present to answer questions and one or two films from the course shown.

### Course Syllabus

The course sought to place the health and social problems of local and national character in their international setting and the proportion of time allocated was :—

1. World Social and Health Problems : 2 days
2. National and Local Social Problems : 3 days
3. National and Local Health Problems : 5 days

Stress was placed on the fact that international organisations existed to safeguard peace (U.N.O.) ; to promote health and fight disease (W.H.O.) ; to overcome ignorance (U.N.E.S.C.O.), want (U.N.I.C.E.F.) (F.A.O.), and remove squalor and idleness (I.B.R.D. Colombo Plan, I.L.O.) etc.

The vocational opportunities and responsibilities in medical and social work were outlined and the provisions for removing the Beveridge "Five Giants" in Britain outlined. Every opportunity was used to learn from field workers how special groups such as the aged, or children deprived of proper home life, or tuberculosis sufferers, or handicapped children were cared for. If the children were able to see how children in trouble were helped, so too, they were able to see how the principle of voluntary service provides outlet through many organisations (B.C.S.S., B.R.C.S., St. John, etc.) for constructive participation in community life.

Talks on the health services were given a realistic basis by bringing into the school, medical workers ranging from a family doctor to a health visitor, home help organiser and sanitary inspector. The girls visited a hospital (Southmead) ; two schools for handicapped children (Novers Park Open Air School and The School for the Deaf, Westbury-on-Trym). The Port Health Services were explained during a visit to Avonmouth Docks and mother and child welfare services illustrated by a visit to a local clinic and varying housing conditions in the City shown by visits to different parts of the City.

### Course Tutors

A list of those who have taken part in the course from the outside is most impressive, and an outstanding feature has been the readiness of all approached to participate.

Miss B. G. Biddick, Head of Department of Women's Studies,  
College of Technology.

Mr. D. M. Evans, Personal Assistant to Medical Officer of Health.

Mr. T. E. Eveson, Chief Inspector of Schools.



Mrs. Faulk, Assistant County Director for Welfare, British Red Cross Society.  
 Dr. Jean Fraser, family doctor.  
 Miss W. Gibb, Sister Tutor, Public Health Department.  
 Miss Jones, Principal, Nursery Nurses Training Centre.  
 Mr. H. E. Lewington, Children's Officer.  
 Dr. A. McFarlan, Epidemiologist, Public Health Department.  
 Mr. R. Mills, Secretary, Bristol Council for Social Service.  
 Dr. D. T. Richards, Senior Port Medical Officer.  
 Mrs. Sheen, Health Visitor for Sick and Aged.  
 Dr. A. L. Smallwood, Senior Medical Officer School Health Service.  
 Miss R. F. Thompson, Youth Employment Service.  
 Miss L. M. Thorne, Deputy Sister Tutor, Public Health Department.  
 Miss Walton, Home Help Organiser, Public Health Department.  
 Miss Waugh, Technical Nursing Officer, Ministry of Labour.  
 Dr. S. Walker, Senior Medical Officer, Maternity and Child Welfare.  
 Miss Webber, Matron, Southmead Hospital.  
 Mr. Welsman, Deputy Welfare Officer, Bristol.  
 Mr. G. L. Whone, Sanitary Inspector, Public Health Department.  
 Miss C. Wood, Nutritionist, Public Health Department.

### Assessment

Three things were most important indices to the success or otherwise of the course :—

- (a) The folios of work of the students.
- (b) The quiz panel on the final day of the course.
- (c) The Parent Teachers' Association meeting on the 12th April, at which the girls themselves were present.

These established that there was a need for such a course before the girls left school ; that the class teachers found that the girls had worked at a higher tempo and with greater enthusiasm than they (the teachers) had believed possible—this was reflected in the folios of work : the parents made known their own feelings of the value of the course and the enthusiasm of the girls to learn more.

The views of the class teachers are interesting. They felt that the value of outside people coming in to give the talks could not be minimised as they brought practical experience which was valuable in tying-up what had been previously learnt and drawing out a desire to be better informed on many subjects with which they would be concerned in the future. They had, as one of the teachers put it, opened doors of which the girls had previously been unaware and to new fields of activity of which " education was only just the beginning."

One criticism which the teachers made was that the course was too concentrated and they felt a need for more time to follow side-tracks from the lectures given by the visiting speakers. They also felt that a modified approach would be necessary for the less able (the course had been given to the " A " groups in the Modern School) and that more time would be necessary for the girls to follow their own research. The course might be integrated into the fourth year, with the class teachers giving more background work and opportunity for discussions. It was also evident from the way in which the girls made notes and the way in which they expanded these notes and from the questions which they asked, that



they had made efforts to learn things which stretched their mental capacities further than many people felt they could be stretched. The teachers also felt that they themselves benefited from being present at the talks and visits, which would be invaluable to them in the future.

I would mention that the point made above about the course being too concentrated was, in fact, generally realised, but there was a desire to complete a pilot course before the end of the spring term. Integration into a school curriculum should be possible but the general continuity of an outside course should be recognised because of its undoubted impact in introducing reality of experience presented in talks by outside speakers and visits to places of relevant interest.

Some of the questions asked by the children during the "Quiz" included :—

1. " If I adopted a child and work took me to Australia, could I take the child with me ? " A subsidiary question was—" What would the answer be if the child was a foster child ? "
2. " If a child is sent to an approved school, is any work done on the parents in the meantime ? " A subsidiary question was—" What happens if the parents do not want the child back ? "
3. " What happens to a child in foster care who becomes or remains a delinquent ? "
4. " What can be done with regard to people who have religious prohibitions on eating certain foods in time of famine ? "

There were many questions asked on health matters and on the various agencies of U.N.O. One interesting feature was that parents, teachers, visiting lecturers and the girls themselves felt that if the course is to be used elsewhere in the City, it should be extended to include boys.

## Conclusions

It is clear that the course was of great value and was very much appreciated by the school, parents and the girls involved ; but quite obviously it would not be possible to use so many outside people of senior status on the scale that would be necessary if the course was introduced into the many other schools with similar problems in other parts of the City. It should be possible, however, to visualise :—

- (i) The formation of a central pool of suitable films and film strips, as well as books, on the various problems which were covered in the course.
- (ii) A special course for school teachers with special responsibilities in social studies or pre-nursing training, who could be given talks from specialists on the various topics and made acquainted with the availability of teaching materials, organisations prepared to assist and possible relevant places which could be visited.

If these steps were taken it would be possible to conceive that the school syllabuses could contain special arrangements for a school leavers' course on the health and social services integrated into their own school arrangements.

# SCHOOL LEAVERS' COURSE—"THE HEALTH AND SOCIAL SERVICES TO-DAY"

Public Health Department,  
Bristol in conjunction with  
Education Department

FEBRUARY-APRIL, 1954

Pilot Scheme at Portway  
Secondary Modern School  
for Girls

	11th February	12th February	19th February	26th February	5th March	12th March
A.M.						
10.0	WORLD SOCIAL AND HEALTH PROBLEMS. MAN V. FIVE GIANTS, WORLD FOOD PROBLEMS		NATIONAL SOCIAL AND HEALTH PROBLEMS	(2) <i>Want</i> How overcome by State and Voluntary Organisations in Welfare State. Gaps in provisions. (Mr. Welsman, Miss Walton, Mrs. Sheen)	<i>Children in Trouble</i> 1. How it starts. 2. What happens. 3. How it ends. 4. How it can be Prevented. Film. (Mr. Lewington)	(3) <i>Disease</i> To-day and Yesterday. How Spread. How Prevented. (Dr. A. McFarlan)
—	International problems and agencies. Economic aspect The five Giants. (D. M. Evans)	(Miss C. M. Wood)	(1) <i>Idleness</i> Mass unemployment. The problem in Britain. Full employment—the effects of —the Agencies for employment; Trade Unions (D. M. Evans)			
12.0						
P.M.						
2.0	INTERNATIONAL ASPECTS OF DISEASE AND WANT (The work of WHO etc.) (D. M. Evans)	<i>Some Problems of International Relief</i> (Miss Thorne)	<i>Square Pegs and Round Holes</i> Vocational talks on work in health and social services. (Miss Thompson, Miss Jones, Miss Biddick)	<i>Handicapped Children</i> Visits in groups to a school for handicapped. Visits to: Open Air Sch., Sch. for Deaf.	<i>Voluntary Service</i> The principle of voluntary service and outlets for youth in voluntary organisations: BRCS, St. J. etc. (Mr. R. Mills, Mrs. Faull (BRCS), Miss Saram (St. J.)	<i>Health Services To-day</i> What they provide. Who pays? (Health Workers — health visitors, district nurses, Mr. D. M. Evans and Miss Thorne)
—						
4.0						

SCHOOL LEAVERS' COURSE—"THE HEALTH AND SOCIAL SERVICES TO-DAY"—*continued*

	19th March	26th March	2nd April	9th April	12th April
A.M. 10.0	<i>General Medical Services</i> The work of the family doctor, dentist, pharmacist, etc. (Dr. Fraser, Miss Waugh)	<i>Local Authority</i> <i>Personal Health</i> Care of Mother and Pre-school Child. Parentcraft. Home Nursing. Visit: Portway Clinic (Dr. Walker)	<i>HEALTH SERVICES</i> <i>Environmental Health</i> Food and Atmosphere (Mr. G. L. Whone)	<i>Port Health Service</i> How disease is prevented from entering country at the port, etc. (Dr. D. T. Richards)	7.30 p.m. <i>Parent Teachers' Association</i> Exhibition of folios and discussion.
— 12.0					Panel :—
P.M. 2.0	<i>Hospital Services</i> Visit to a hospital. Talks from Almoner, nurse, physiotherapist and doctor. <i>Visit</i> — Southmead Hospital (Miss Webber.)	<i>The School Health Services</i> The work of the school health services. Visit and Talks. (Dr. A. L. Smallwood)	<i>Housing (4)</i> (Chief San. Insp.) Squalor. Bad Housing. Pre-war Housing; Post-war Housing; Planning. Social Amenities Visit.	<i>Panel</i> "Your Questions Answered" On health and social services. (Mr. Lewington, Mr. Eveson, Mr. Evans, Miss Thorne, Miss Waugh, Miss Gibb.)	Chairman—Miss Shewell Mr. Eveson Mr. Evans Miss Thorne Dr. Smallwood Mr. Lewington Miss Jones Miss Surtees
— 4.0					

*A Short Account of a School Leavers' Course for Secondary Modern Schools which was held at the Central Health Clinic in November and December, 1954*

The Portway Pilot Scheme was discussed by the Principal School Medical Officer and Medical Officer of Health (Dr. R. H. Parry), Senior School Medical Officer (Dr. A. L. Smallwood), Chief Education Officer (Mr. G. H. Sylvester) and Chief Inspector for Schools, Bristol (Mr. T. E. Eveson). The report and recommendations which were made on the results of the course acted as the basis of discussion and a decision was made to allow the scheme to be extended in the way outlined below.

Further discussions followed, between Dr. Smallwood, Mr. Eveson and myself, at which it was decided to hold the course on five successive Thursday mornings, commencing on Thursday, 4th November, 1954, at the Central Clinic. This new course would be open to teachers in secondary modern schools for girls *and* boys, who had special responsibilities for social and local studies, health education or pre-nursing training. Further to this it was agreed that Mr. Eveson would contact all head teachers requesting the release of the teachers but that I would make all arrangements concerning speakers, chairmen and accommodation.

A number of film strips on the international aspects of social and health problems (United Nations Organisation) were obtained from the Educational Foundation for Visual Aids and pre-viewed with the object of forming a small central pool from which teachers could draw as the need arose. These were seen by Dr. Smallwood, Mr. Eveson and myself and the selected sets were purchased and are now held in the Education Department's film strip library.

Many film strips on health and social problems are held by the Public Health Department and, in due course, suitable film strips might be made available to teachers through the Public Health Service or Education Department.

The following course syllabus was drawn up and acted as the basis of the course when it began on 4th November, 1954.

## **" THE HEALTH AND SOCIAL SERVICES TO-DAY "**

### **A Guide for a School Leavers' Course for Secondary Modern Schools**

*Thursday, 4th November, 1954*

- 9.30 a.m. WELCOME.—Professor R. H. Parry, Medical Officer of Health and Principal School Medical Officer, Bristol.  
INTRODUCTORY TALK.—Mr. T. E. Eveson, Chief Inspector of Schools.
- 10.45 a.m. (a) ACCOUNT OF PILOT SCHEME AT PORTWAY MODERN SCHOOL FOR GIRLS.—Mr. D. M. Evans, Personal Assistant to Medical Officer of Health.  
Interval.
- 11.0 a.m. (b) Miss M. I. Shewell, Headmistress, Portway Secondary Modern School for Girls.  
Discussion.
- 12.15 p.m. Proposals.



*Thursday, 11th November, 1954*

- 9.30 a.m. INTERNATIONAL WORLD HEALTH AND SOCIAL PROBLEMS :  
The size of the problem : The U.N.O. and special  
agencies. (Lt.-Col. G. R. Hawkins, O.B.E., Secretary  
U.N. Association.)
- 10.45 a.m. U.N.E.S.C.O. The war against ignorance.  
Interval.
- 11.0 a.m. F.A.O. }  
— W.H.O. } Hunger, disease and want.  
12.15 p.m. U.N.I.C.E.F. }
- (Mr. H. Chitty, F.R.C.S., Chairman U.N.A. District  
Council.)  
Available teaching material (Mr. D. M. Evans).

*Thursday, 18th November, 1954*

- 9.30 a.m. NATIONAL AND LOCAL HEALTH AND SOCIAL PROBLEMS.  
— THE NATIONAL HEALTH SERVICE IN PERSPECTIVE (Dr.  
9.50 a.m. R. C. Wofinden, Deputy Medical Officer of Health,  
Bristol).
- 10.0 a.m. EDUCATION AND HEALTH PROBLEMS OF TO-DAY :—  
— (a) PERSONAL HEALTH :  
10.45 a.m. — Spread of infection  
— Nutrition  
— Parentcraft  
— Mental Health  
— Knowledge of Health Services.  
(Dr. A. McFarlan, Epidemiologist, Dr. Temple  
Phillips, Chief Assistant M.O.H., Dr. S. Walker,  
Senior M.O., Maternal and Child Welfare.)
- 11.0 a.m. (b) ENVIRONMENTAL HEALTH, FOOD HYGIENE, HOUS-  
— ING, ATMOSPHERIC POLLUTION. (Members of staff  
12.15 p.m. of Chief Sanitary Inspector.)  
Discussion.

*Thursday, 25th November, 1954*

- 9.30 a.m. LOCAL HEALTH AND SOCIAL SERVICES  
(a) *Care of Children:*  
— Deprived  
— Delinquent  
— Normal  
— Handicapped
- 10.45 a.m. (b) *Family Problems:*  
— Special families  
— Aged  
(Chairman : Dr. R. C. Wofinden. Speakers : Dr.  
S. Walker ; Mr. H. E. Lewington, Children's  
Officer ; Dr. R. F. Barbour, Director, Child  
Guidance Clinic ; Dr. A. L. Smallwood).  
Interval.

- 11.0 a.m. Discussions on (a) and (b).  
 11.30 a.m. (c) *The Principles and Opportunities of Voluntary Service.* (Mr. R. Mills, Secretary, Bristol Council for Social Service.)  
 —  
 12.15 p.m. Discussion.

*Thursday, 2nd December, 1954*

- 9.30 a.m. "YOUR QUESTIONS ANSWERED": Panel of Speakers—  
 — 1. Dr. R. Barbour  
 10.45 a.m. 2. Lt.-Col. Hawkins  
 3. Dr. R. C. Wofinden } Chairman: Canon M. Stock-  
 4. Mr. R. Mills } wood (Chairman, Bristol  
 5. Mr. H. E. Lewington } Health Committee)  
 6. Dr. S. Walker  
 7. Mr. D. M. Evans  
 Interval.  
 11.0 a.m. Written questions based on previous sessions or relevant  
 — problems.  
 Discussion.  
 12.15 p.m. Close.

Over thirty teachers attended and it was suggested by the Chief Inspector for Schools at the conclusion of the course, that they should consider introducing modifications of the scheme into their various schools and that a further meeting should be arranged during 1955 to examine such developments. (This is to take place during the Summer Term, 1955.)

It was further agreed that a compendium containing reports of the talks and material used by the speakers on the original Portway Course should be circulated to teachers who had attended this course. This was compiled and edited by the Personal Assistant to the M.O.H. and is being circulated to the Schools concerned. This is quite a sizeable document and the co-operation of the original speakers in providing short written accounts of their talks was very much appreciated.

It is too early to draw any hard and fast conclusions from these developments, but from the point of view of the School Health Service it has provided a setting for extending health teaching in the educational system. This in itself is important as it gives an opportunity for re-emphasis in a social context of the vital nature of even some of the most simple habits of hygiene and for underlining many of the principles and precepts set out by class teachers. Similarly, the time devoted by health and social workers of all kinds and by the District Secretary of U.N.A. to the scheme shows that the need is widely appreciated. An integrated approach to these problems is clearly best.

It should be mentioned, too, that in so short a course the main effort was to concentrate on sources of information, teaching aids, and points to emphasise in talks on the health and social services. No attempt was made to provide a scheme of work which would be suitable for all schools in all areas. The need for modification, adaptation and experiment was stressed.

Since October, 1954, I have myself returned to teaching and have been faced with such problems in a boys' school with A, B, and C streams,

and four classes of school leavers. I have found little to change my views on the need for "a preparation for life" approach to the health and social services in their local, national and international settings. This is borne out by a steady demand for further information which continues to reach me from some of the teachers who had attended the course.

Summing up : this is a beginning, not a panacea, but it is a continuing experiment from which much might yet emerge.

## HEART DISEASE AND RHEUMATISM

Summary of cases attending **CARDIO-RHEUMATIC CLINIC, 1954**, including Primary, Secondary, Grammar and Nursery Schools

	No treatment or restriction	No treatment but restriction of games, etc.	Treatment and school	Treatment and exclude from school	Institutional treatment	Total
<b>NEW CASES</b>						
Rheumatic Heart Disease	2	-	-	-	11	13
Chorea ...	1	-	-	-	4	5
No Organic Disease ...	40	-	-	-	-	40
Congenital Heart Disease	5	1	-	-	-	6
Various ...	-	-	-	1	8	9
	48	1	-	1	23	73
<b>RE-EXAMINATIONS</b>						
Rheumatic Heart Disease	264	17	-	-	9	290
Chorea ...	8	1	-	-	1	10
No Organic Disease ...	390	2	-	-	-	392
Congenital Heart Disease	81	21	1	-	-	103
Various ...	7	1	-	1	4	13
	750	42	1	1	14	808

No. of Individual children examined	...	525
No. of New cases for 1954 ...	...	73
No. of Re-examinations ...	...	808
TOTAL NUMBER OF ATTENDANCES ...	...	881

Cardio-Rheumatic Clinic

C. Bruce Perry

The work of the Cardio-Rheumatic Clinic continued during 1954, and as will be seen from the table, there was little change in the number of cases referred to the Clinic. Fortunately the majority of the new cases referred (40 out of 73) proved to have no organic heart disease and were found to have innocent cardiac murmurs. This illustrates one very valuable aspect of the Clinic which is to investigate all cases in which doubt has been expressed on the heart. Most of such cases prove to have no heart disease and as a result the child can be freed to lead a full, normal school life, and the parents' anxiety can be removed.

Work on the prevention of streptococcal sore throats has continued, and a paper on this has been published in the *British Medical Journal*.\* An analysis of the cases seen at the Clinic over a six-year period, a summary of which follows showed that the number of cases of congenital heart disease seen was nearly the same as that of rheumatic heart disease. This is a striking illustration of the decrease in the incidence of acute rheumatism to which attention has been called previously.

*The following is a summary of the results of a six-year survey of the cases seen at the School Cardiac Clinic in Bristol by John Apley and C. Bruce Perry.*

Only one other report of a school cardiac clinic can be traced previously in the British Isles. The Bristol clinic was started in 1927 by Dr. Carey Coombs and has been continued since. For various reasons comparison of earlier years is not possible. Therefore the present survey is confined to the six years 1943-48. The table shows the number of new cases attending annually during this period. Of the children seen 40 per cent were between ten and thirteen years old, 27.5 per cent between five and seven years, and 15 per cent were under five years of age. Those with no abnormalities were discharged after one, or at most, two attendances. Others continued under supervision for years, usually till school leaving age.

Year					No. of New Cases	
1943	...	...	...	...	...	237
1944	...	...	...	...	...	221
1945	...	...	...	...	...	223
1946	...	...	...	...	...	176
1947	...	...	...	...	...	194
1948	...	...	...	...	...	235
TOTAL					...	1,286

Of 551 cases of suspected heart disease, rheumatic heart disease was diagnosed in 24, and congenital heart disease in 98. No definite diagnosis was made in 15 cases. In 243 cases there was a functional murmur, and in the remaining 171 cases no abnormality was found.

\* PERRY, C. B. and GILLESPIE, W. A., 1954. *Brit. Med. J.*, **2**, 729. "Intra-muscular Benzathene Penicillin in the Prophylaxis of Streptococcal Infection in Rheumatic Children".



There were 196 cases with a history of previous rheumatic fever and of these 84 had rheumatic heart disease, of which only 8 were active. In 47 cases there was a history of previous chorea, and in 19 of them there was rheumatic heart disease, 3 of which were active.

Most children with active acute rheumatism would not be referred to the Clinic, but 55 cases were referred under this heading and in 14 cases, of which 9 were found to have active carditis, the diagnosis was confirmed.

Only 19 out of 105 suspected cases were confirmed as suffering from chorea and 6 of these had active carditis. Of 168 cases referred under the heading of chronic rheumatism, 3 had a cardiac abnormality, 1 of these had rheumatic carditis, the other 2 congenital defects. Most of the cases fall into the group of "growing pains" described by Naish and Apley.

The importance of the clinic in relation to the detection of functional murmurs was emphasised. In 303 out of the 1,286 cases this was the diagnosis and much needless anxiety and invalidism was spared.

It was pointed out "that the true incidence of heart disease cannot be assessed from the attendances of patients referred to such a cardiac clinic." The ratio of rheumatic to congenital cardiac disorders in Bristol was 59 to 41 "if all cases of rheumatic heart disease (including recovered cases) are included." The writers are of the opinion that the figures for congenital heart disease are an under estimate, and instance that children with severe and cyanotic heart conditions are likely to be kept from school and therefore the cardiac rheumatic clinic. They think also that further surveys should be made of unrelated school and pre-school populations.\*

\* APLEY, J. and PERRY, C. B., 1954. *Arch. Dis. Child.*, **29**, 317. "A Six-Year Survey of the Cases Seen at a School Cardiac Clinic."

## HOSPITAL SCHOOLS

At the end of the year the following children, who were patients in hospitals, were being given education under the recognised hospital school arrangements.

	Boys	Girls	Total
Winford Hospital School, Somerset ( <i>Voluntary Management</i> )	20	25	45
Frenchay Hospital School, Bristol ( <i>Bristol Maintained</i> )	30	27	57

## INFECTIOUS DISEASES

A.L.S.

This was not a "measles" year, the number of cases being only 90 amongst children of school age, which is as low as it has been in the last few years. Practically the entire incidence occurred in the last quarter of the year. There is, however, some indication that next year will probably be a "measles" year.

There were also fewer cases of whooping-cough amongst children of school age, only 351 cases occurring during the year. With the exception of 1949, this is the lowest figure in recent years.

The policy of non-exclusion of school contacts of cases of whooping-cough, chicken-pox and measles which was instituted in 1953 was continued throughout the year. There have been no incidents which have in any way given rise to the need for further consideration of this procedure. It may possibly be because this has been a year of low incidence of infectious diseases, but the saving of school time and the more

normal life made possible to the children has amply justified the policy. The figures of cases of measles and whooping-cough during recent years are given below :—

<b>Measles</b>		<i>School Age</i>	<i>Under School Age</i>
<b>1954</b>	...	<b>90</b> (41.7 per cent)	<b>126</b> (58.3 per cent)
1953	...	3,221 (43.2 per cent)	4,239 (56.8 per cent)
1952	...	805 (38.9 per cent)	1,261 (69.1 per cent)
1951	...	2,484 (35.22 per cent)	4,568 (64.77 per cent)
1950	...	1,264 (44.6 per cent)	1,570 (55.4 per cent)
1949	...	1,315 (36.0 per cent)	2,337 (64.0 per cent)
1948	...	2,111 (37.41 per cent)	3,531 (62.59 per cent)

<b>Whooping-cough</b>		<i>School Age</i>	<i>Under School Age</i>
<b>1954</b>	...	<b>351</b> (31.9 per cent)	<b>750</b> (68.1 per cent)
1953	...	691 (34.78 per cent)	1,296 (65.21 per cent)
1952	...	475 (26.5 per cent)	1,317 (73.5 per cent)
1951	...	510 (27.1 per cent)	1,372 (72.9 per cent)
1950	...	982 (32.16 per cent)	2,071 (67.84 per cent)
1949	...	106 (29.04 per cent)	259 (70.94 per cent)
1948	...	434 (24.07 per cent)	1,369 (75.9 per cent)

There were 10 cases of poliomyelitis amongst school children during the year. The tendency previously noted for the cases to be more evenly distributed throughout the year still obtains and although the number of cases was small, the greatest incidence was noted in the early part of the year. The last quarter, which usually is one in which the most cases occur, showed a lower incidence of the disease.

There were five cases of cerebro-spinal fever during the year.

Admissions of patients of school age to the Infectious Diseases Hospital at Ham Green during the year totalled 378, the average stay per patient being 21.7 days.

### Immunisation against Diphtheria

Immunisation against diphtheria was continued during the year in the schools and clinics on the same lines as in previous years. Visits are paid to all the primary schools, and regular sessions for immunisation are held at the Authority's clinics. There has again been no case of diphtheria amongst Bristol school children during the year, this being the fifth successive year in which this has been so. The figures of immunising injections given during the year to children of school age are as follows :—

Number given full course of immunising injections	...	914
Number given " booster " injections	... ..	3,895

### Influenza

A.L.S.

Towards the latter part of November information reached me that in two independent residential schools a fair number of children had been affected with a mild form of influenza. At one of them nearly a quarter of the boys was affected. This was closely followed by an experience at a direct grant grammar school where again nearly a quarter of the boys was absent with this mild influenza. At the beginning of December it began to be reported that influenza was the cause of some absence in the maintained schools in the north of the City. Until the schools closed for the Christmas holidays fresh cases of influenza of the mild type were reported. It was interesting to note the relatively slow spread south of this disease

which by the end of the year was only just beginning to affect the central districts. The eastern and southern sides of the City had not been affected at all when the schools closed, but a small area south of the river at Brislington, which is very circumscribed by the tortuous course of the River Avon, was markedly affected. Because of its relative isolation some doubt was cast by me on the diagnosis with the teacher in charge of a primary school in the Brislington area and she asked a number of pupils to describe their symptoms. Some extracts from their accounts follow.

"The first day I felt very tired. My head felt as though it would fall off any minute. I began to get so weak I could hardly stand up. At night when I went to sleep I got so hot I used to perspire."

"Everything I ate seemed to stick in my throat. Nearly always I had a headache. If I stood up I felt as though I was going to fall over, and I wanted to sit down all the time. I began to sneeze and my eyes began to water. I felt tired and I had terrible pains in all my limbs. Next day I felt so weak I could not sit up."

"I was thirsty and hungry but I did not want to eat or drink. At times I felt sick. I was sweating all the time. Also when I stood up I could hardly see or walk for a minute. I had a bad cough as well."

"This disease was agony because all I could do was to lie down and go to sleep, but when I did go to sleep I was awakened by voices ringing in my head, and all I could do was to scream until my father or mother came to comfort me."

"For the first three days I could hardly stop from sneezing and coughing. At times I felt so awful I wanted to lie down and cry. I hardly ate anything but I had a lot of hot drinks and plenty of sleep. Sleep and hot drinks are, I think, a good remedy."

I think that these descriptions are very apt and leave no doubt at all that the disease was influenza. These children were in a class of eleven-year-olds.

The features of this outbreak were the relative mildness and the prolonged nature of the symptoms, which gave rise to a secondary infection which lasted for two weeks or more. The second characteristic was the relatively slow spread throughout the City. The third is that the children most at risk seem to be those away from the sheltered environment of their own homes who were in residential schools, even at schools within the City boundaries. It is tempting to speculate that these boys from the sheltered environment of their homes had a lower resistance to the onset of influenza compared with the children of the maintained schools of the City.

### **Medical Examinations of Entrants to the Teaching Profession**

In accordance with the arrangements outlined in Ministry of Education Circular 249, the medical examinations of candidates applying for entry to training colleges and entrants to the teaching profession, were carried out by the Medical Officers of the Local Authority. During the year, 220 candidates resident in Bristol were examined in connection with admission to training colleges and also 137 entrants to the teaching profession were examined for some exceptional reason.



**MEDICAL INSPECTION**

A.L.S.

A complete medical inspection was made during the year of 20,312 children attending the Committee's primary and secondary schools. The tables relating to these examinations will be found in the statistical section at the end of this Report.

**Co-operation of Parents**

The number of parents present at primary and secondary school medical inspections was as follows :—

	<i>No. Examined</i>	<i>Parents Present</i>	<i>Per cent.</i>
Entrants ... ..	7,306	6,598	91.54
Second Age Group ...	6,108	4,527	74.11
Third Age Group ...	4,624	1,176	25.43
TOTAL ...	18,038	12,301	68.19

**Medical and Dental Inspection and Treatment of Pupils attending Direct Grant Grammar Schools**

A.L.S.

In view of the requirements of the School Grant Regulations 1951 that adequate provision should be made in direct grant schools for the medical inspection of all pupils, and the medical care of boarders in term time, the question of the medical inspection and treatment of pupils attending the direct grant grammar schools of the City was considered by the Committee early in 1954. A meeting was arranged with the Heads of these schools to ascertain what arrangements existed for the medical inspection of the pupils and how far these schools wished to avail themselves of the facilities of the School Health Service, both for medical inspection and clinic treatment. There were six schools concerned and following this meeting a communication was sent to each school outlining the facilities available and asking if the Governors wished to accept the offer of the Authority to make arrangements for the medical and dental inspection and treatment of the pupils at their schools. Replies were received from two of the schools stating that they already had satisfactory medical arrangements. In one other school arrangements have since been made for medical inspections to be carried out by a private practitioner, and the three remaining schools agreed to accept the medical facilities offered by the Authority. Details were discussed with the Heads of these three schools and in two schools a commencement was made of the medical inspection of the pupils in the autumn term. Visits of the doctor and nurse were arranged in the same way as for medical inspections in the Authority's schools, and the Ministry's record card 10.M was used for record purposes.

Each school has its nominated medical officer from the staff of the Authority to whom the Head can turn for advice at any time. This doctor will be responsible for the medical inspection at the school. In one school, owing to the lack of accommodation, arrangements were made to hold the inspections on a particular afternoon of the week when the pupils were at sports, the boys concerned in the inspection being retained in the school for the purpose. At the second school, restriction of accommodation also presented a difficulty. The staff dining-room is used for the medical inspections which are held in the morning, and owing to the fact



that the doctor is able to commence the inspections as soon as the school opens it is possible to complete the examinations before the room is required for dining purposes. In the third school it has not proved possible for the school authorities to find accommodation for the medical inspections to be held on the school premises. The desirability of holding the inspections at the school is recognised because it is essential for the doctor to have contact with the teaching staff. However, so difficult is the situation at this school that it has now been agreed to hold the inspections at the Authority's Central Clinic. One is bound to make the comment that these arrangements may well prove to be wasteful of the time of the pupils at the grammar school concerned and may be a factor in the future which may cause them to be revised. At the end of the year the scheme was still awaiting the final agreement of the school governors but it is hoped to commence the inspections early in the new year. Up to the end of the year 243 children attending direct grant grammar schools had been medically inspected. Another grammar school, formerly a direct grant school, is now a voluntary aided school. The medical inspections at this school had been carried out for some years by a doctor of consultant status and these arrangements have for the present been continued. The statistics relating to the examinations at this school have been incorporated in the statistical section at the end of this report.

At the moment it has not been possible to commence dental inspection and treatment owing to shortage of staff but as soon as the staff position permits, arrangements will be made for dental inspection and treatment to be commenced. In the meantime the pupils have been advised to continue to seek dental advice and treatment from their own dental practitioners though a certain amount of emergency treatment for pupils at these schools is being given by the dental surgeons of the Authority.

## **MILK AND MEALS IN SCHOOL**

T. B. J. Hetherington

During the course of the year 2,405 children were authorised to receive free dinners and 160 on part payment, a decrease from 2,449 and an increase from 145 respectively compared with 1953. The total number of children taking dinners each day was 19,798 (an increase of about 1,100 over the previous year), the percentage of children taking dinners having increased from 31·84 to 32·75. Sixty-five kitchens were supplying meals at this time to 200 school canteens as well as the Marlborough House Occupation Centre and several institutions of further education.

A return taken in October showed that 53,493 children were taking milk at school (one-third pint daily in Primary, Secondary and Special Schools ; two-thirds pint daily in Nursery Schools, the School for Spastics and the Open Air School) a percentage of 88·29.

Several meetings were held during the summer term at which Dr. Smallwood and Mr. Hayter, the Food and Drugs Inspector, spoke to some 500 full and part-time staff on hygiene, food handling and food contamination, the need for periodic medical inspections, etc.

Medical examinations including X-rays are now accepted for all staff employed in kitchens and canteens and during the past year the majority of staff concerned has been examined. It is interesting to note that there was a reluctance on the part of some when the arrangements were first

introduced, but following Dr. Smallwood's talks and the sympathetic approach of the medical officers concerned, much of the prejudice has now been overcome.

In September new kitchens were opened at Whitehouse J.M. & I. and St. Thomas More S.M. Schools, enabling us to close the East Bristol Central Kitchen, which was unsatisfactory from a structural point of view.

A further review of kitchen and canteen premises is now under way and it is hoped to improve conditions still further in a number of schools.

### **Milk in Schools**

F. J. Redstone

The milk supplied to school children in Bristol is frequently checked as to efficiency of heat treatment and standard of cleanliness. During the year 237 samples of milk supplied to schools were taken and submitted to the laboratory for phosphatase and methylene blue tests; all these samples passed the test laid down for pasteurised milk but 21 failed the keeping quality test. In these cases investigations were made as to the reasons for failure and subsequent samples revealed that improvement had been achieved.

The condition of milk bottles returned to dairies from schools and the hygienic reception and storage of school milk supplies and equipment again received attention, with special reference to the facilities which could be provided in new school buildings.

### **School Kitchens**

F. J. Redstone

Many visits were made to schools by the Sanitary Inspectors in connection with the inspection of foodstuffs and 133 samples were secured and submitted for analysis from East Bristol kitchen and from kitchens attached to the following education establishments: Redland Training College, Glenfrome Junior School, and Romney Avenue School.

All the foodstuffs so sampled were satisfactory with the exception of some cereals which were mite-infested, some dried milk which was insoluble and certain food colouring materials found to contain undesirable ingredients. These foods were condemned as unfit for human consumption and withdrawn from stock.

The meat supplies to school kitchens were regularly inspected and found to be of satisfactory standard.

The Department co-operated in dealing with minor outbreaks of dysentery at Hotwells and at Oakfield Road Day Nurseries.

Several scholars and members of the staff at Holy Trinity School, Hotwells, were taken ill with suspected food poisoning early in September. These meals were supplied from the Bedminster Down School kitchen, but no other cases of sickness were reported from schools receiving the same food and the cause of the outbreak remained undiscovered. All the children and staff returned to school in a few days. Faeces specimens from the kitchen staff were reported negative.

The important matter of food hygiene receives constant attention in educational establishments and full co-operation with the School Meals Department was maintained throughout the year. At Dr. Smallwood's invitation, lectures were again given to some 60 members of the kitchens' staffs and the interest taken in these discussions was most encouraging.

## Milk in Schools

A.L.S.

The consumption of milk in certain schools continues to cause some anxiety. It is obvious to anyone acquainted with children that more infants take milk than juniors and more juniors than seniors. As mentioned by Miss Hetherington in her report, a return made in October shows that the percentage of children taking milk was 88·29 per cent. A high proportion of the children are however in the junior and infants schools. When one examines the position in the secondary schools some anxiety is felt about the number of children who are not partaking of the one-third pint of milk given. From the October returns there were five schools where the percentage of children taking milk was 50 per cent or less and three of these five schools were grammar schools. The six schools with the lowest consumption were grammar or technical schools. In 23 out of 44 of the secondary schools the consumption of milk was less than 75 per cent and in only seven of the secondary schools was the percentage more than 90 per cent. One school recorded 100 per cent. A little enquiry was therefore made into the characteristics and circumstances which caused the children not to partake of the milk. It was apparent at once that the boys in general partook of the milk much better than the girls, the difference in favour of the boys being anything from 2·6 to 35 per cent. The schools were therefore matched in pairs and I give below tables showing a comparison of the consumption of milk by boys and girls from as near as possible the same populations. In the first section of the table the children are on the same site, i.e. both boys and girls are in the same building but on different floors. In the second section of the table the children were drawn from similar populations, i.e. in secondary modern schools in the same area. Lastly I give the comparisons for boys and girls where children were actually in the same classrooms. In every case a difference exists in favour of the boys. One can only conclude that there is some characteristic of the girls which is operating to cause them to reject their morning milk. The Head of one school who was good enough to make a special enquiry found that it was amongst the senior girls that there was reluctance to take milk. "In our top form of senior girls, for instance, only 10 girls out of 25 take milk regularly and when I discussed the matter with them I found that the girls generally speaking were not sufficiently hungry to take milk at 10.45 in the morning." One of the teachers suggested to me that these girls at the age of thirteen were already beginning to think of their figures. This might be a possible reason for this particular age group but does not account for the difference which occurs in the eleven-year-olds. One certain fact that does seem to be operating in the colder weather is that the "temperature of the milk did seem to deter the pupils from taking it." I referred last year in my Report to an experiment in one school where the milk was heated and served with drinking chocolate, and this resulted in an increase in the consumption of milk. In this school the taking of milk was a social occasion and biscuits were obtainable which were paid for by the girls who were responsible for the preparation and serving of the milk. There does seem to be an advantage in creating better conditions for the consumption of milk, even at slight cost, for which I feel the girls generally are quite prepared to pay. One is also bound to say that the consumption of milk does depend to some extent on the attitude of the teaching staff. In the schools where the attitude is that the taking of milk is a normal part of school life a high percentage of children partake of the milk. In other schools where it is looked upon as something of a nuisance and rather unnecessary, the percentage of milk consumed is



low. It is notable that in four girls' schools the consumption of milk is the lowest. It is fair to say that some of the Heads did not know in what way their schools were being compared unfavourably with other schools and on this being pointed out they promised to do what they could to interest the pupils in taking the milk regularly. A comment that has been made is that pasteurised milk from certain suppliers "tastes" more than from others. Some children seem to be keenly aware of this, but whether it is merely an excuse on the part of the teachers or children, or whether it is actually a potent reason for rejecting the milk seems to be difficult to elicit, particularly when pasteurised milk is so universally consumed in this town, which is a designated area.

### Consumption of Milk in Schools

School	Boys			Girls			% Difference
	Nos. taking milk	Nos. on roll	% taking milk	Nos. taking milk	Nos. on roll	% taking milk	
<i>On Same Site:</i>							
School A ...	355	371	95.7	310	443	70.0	25.7
School B ...	367	413	88.9	354	488	72.5	16.4
School C ...	583	618	94.3	453	544	83.3	11.0
School D ...	630	709	88.8	686	874	78.5	10.3
School E ...	344	387	88.9	350	464	75.4	13.5
<i>Schools with similar populations:</i>							
Schools F & G	315	330	95.4	230	339	67.8	29.6
Schools H & I ...	310	330	93.9	241	334	72.1	21.8
Schools J & K	420	446	94.2	173	200	86.5	7.7
Schools L & M	300	335	89.5	180	313	57.5	32.0
Schools N & O	350	363	96.4	210	342	61.4	35.0
Schools P & Q	338	423	79.9	354	558	63.8	16.1
Schools R & S	622	622	100.0	410	470	87.2	12.8
Schools T & U	240	323	74.3	380	530	71.7	2.6
<i>Mixed schools:</i>							
School V ...	234	252	92.8	140	215	65.1	27.7
School W ...	210	292	71.9	73	152	48.0	23.9
School X ...	166	231	71.8	149	228	65.3	6.5
School Y ...	69	116	59.5	63	123	51.1	8.4

### MINOR AILMENTS

A.L.S.

A full comment was made on minor ailment policy in my report for 1953. There is little fresh to add this year except that the decline in clinic attendances continues but there is some slight evidence that this process may be slowing down. Meantime it will be necessary in the coming year to reduce the number of sessions at which a doctor attends for minor ailment inspections at certain clinics. The amount of work in the clinics on the new estates tends to be increasing though at a rather slow rate. At the new clinic serving the housing estate at Lawrence Weston the arrangements are for a joint clinic to be held where children of all ages are seen by the doctor. The doctor attends twice a week for these joint sessions of Infant Welfare and School Health Service work. This arrangement is a happy one and will probably be the pattern for the further clinics which are being planned for other new housing estates. In general, the



policy of employing school doctors more and more on specialised work which only they can and should do, and leaving the clinical services to the general practitioners and paediatricians at hospitals and elsewhere will be continued.

One had the impression that impetigo had slightly increased during the year but this is not borne out by the figures. It may be that the cases seen are more persistent than usual. The number of cases of scabies is the lowest of recent years and there is no reason to believe that this condition cannot be entirely eradicated.

The figures of attendances at minor ailment clinics and the numbers of cases of impetigo and scabies in recent years are given below :—

	<i>School Population</i>	<i>First Quarter</i>	<i>Second Quarter</i>	<i>Third Quarter</i>	<i>Fourth Quarter</i>	<i>TOTAL</i>
1945	... 46,500	42,161	42,289	34,155	46,892	165,497
1946	... 47,886	41,400	42,845	37,269	50,044	171,558
1947	... 48,870	35,093	37,483	33,779	48,421	154,776
		(bad weather)				
1948	... 52,561	48,475	54,852	42,942	45,030	191,299
1949	... 54,107	50,052	45,383	35,804	50,596	181,835
1950	... 55,398	50,295	40,387	32,073	40,425	163,178
1951	... 56,825	34,833	47,690	32,814	45,344	160,681
		(Influenza epidemic)				
1952	... 59,855	42,084	46,363	30,825	42,572	161,844
1953	... 62,182	33,456	41,428	29,036	39,118	143,038
<b>1954</b>	... <b>63,573</b>	<b>29,799</b>	<b>35,048</b>	<b>23,914</b>	<b>37,827</b>	<b>126,588</b>

	<i>IMPETIGO</i>		<i>SCABIES</i>	
	<i>No. of School Cases</i>		<i>No. of School Cases</i>	
1940	...	...	3,490	485
1941	...	...	2,091	2,062
1942	...	...	2,413	3,927
1943	...	...	1,881	3,197
1944	...	...	1,798	2,321
1945	...	...	1,416	1,520
1946	...	...	1,381	1,312
1947	...	...	1,043	789
1948	...	...	681	462
1949	...	...	544	224
1950	...	...	470	211
1951	...	...	431	142
1952	...	...	488	120
1953	...	...	562	82
1954	...	...	454	33

## Ringworm

R. P. Warin  
A. M. Fraser

It was mentioned in the previous year's report that the incidence of children suffering from the type of scalp ringworm which is usually acquired from domestic animals was causing concern. The increasing numbers from one area rather suggested that a small outbreak might be imminent. It is a pleasure to say that such an outbreak did not take place and that the numbers suffering from this type of scalp ringworm (*Canis*) are now almost negligible. Contacts of cases were checked in school by means of the Wood's lamp and it may well be that this and the warning of the parents of the danger from stray animals has been a factor in stopping the spread of the disease.

In consequence, it has to be reported that 1954 was, like its predecessor, a quiet year so far as scalp ringworm was concerned. The total number of new cases found during the year among Bristol children of school age was 27, the same number as in 1953. These were sporadic in their distribution and in no way suggestive of a single persistent source of infection.

The number of *Canis* cases (as mentioned above) was 6, and the number of *Audouini* (the type which naturally infects children) was 15. The remainder were due to different fungi, some of which may be acquired from farm animals of some kind from abroad, as occurred in three of the infections included in the above figures.

These latter groups do not show fluorescence under the Wood's lamp, and the assistance of the mycologist recently appointed to the staff of the United Bristol Hospitals has been invaluable. It was possible to let the parents know within a week whether any child was infected or not, instead of having to wait a month, as was unavoidable under the former arrangements for examining and culturing the ringworm fungus. It also is now possible to check rapidly the efficacy of the treatment instituted, and so to end the child's separation from its school fellows as soon as it is safe to do so.

Of the 27 cases proved to be scalp ringworm, 13 were treated by epilation by X-rays with successful results and the child's early return to school. But it has to be pointed out to the parents that this treatment carries a very remote danger that the hair might not re-grow. It is only advised in severe infection of the *Audouini* type, but even then it is perhaps not surprising that some parents prefer the long months of treatment involved when only surface medicaments are used. Attendance at the Clinic, which is held fortnightly at the General Hospital in the Dermatological Department, has been remarkably good and a gratifying feature has been the ability to assure one or two anxious parents that the patch on their child's scalp was proved by examination not to be a ringworm infection but something simpler.

### Body Ringworm

During 1954, 189 cases of this disease amongst school children were treated at the clinics. This compares with 309 in 1953.

### Infestation

As will be seen from the table given below the rate of infestation during the year was as low as it has ever been. Indeed in recent years it has been reduced to the "hard core" of the school population on which no measures seem to have any great effect.

There is a slight change about the time honoured institution of head inspections in schools. This as a routine measure has now been abandoned in favour of more concentrated attention to those known to be chronic offenders. A full scale inspection of any school is now only done at the request of the Head of the school. It is of course a matter which is given attention when the nurse sees the child at her nurse's survey which occurs at least twice a year for all children in primary and secondary modern schools.

*No. of individual pupils found to be infested with vermin*

<i>Year</i>				<i>No.</i>	<i>School population</i>	<i>%</i>
1945	...	...	...	4,355	46,500	9.4
1946	...	...	...	4,903	47,886	10.2
1947	...	...	...	4,320	48,870	8.8
1948	...	...	...	3,399	52,561	6.5
1949	...	...	...	3,659	54,107	6.7
1950	...	...	...	3,027	55,398	5.5
1951	...	...	...	3,016	56,825	5.3
1952	...	...	...	2,674	59,855	4.5
1953	...	...	...	2,990	62,182	4.8
<b>1954</b>	...	...	...	<b>2,773</b>	<b>63,573</b>	<b>4.4</b>

**NURSERY SCHOOLS AND CLASSES**

There has been no change in the accommodation in Nursery Schools and classes maintained by the Committee, which is still 12 nursery schools with accommodation for about 900 children between the ages of two and five and 12 Infants' Schools with nursery classes accommodating about 420 children between the ages of three and five.

There is still considerable pressure on the accommodation and the principal factors taken into account in giving priority for admission are the physical or emotional needs of the child, and bad housing or difficult home conditions.

Details of medical inspections in nursery schools and classes during the year are as follows :

						<i>Periodic Exams</i>	<i>Re-exams</i>
Nursery Schools	...	...	...	...	...	655	1,603
Nursery Classes	...	...	...	...	...	346	699
Number of Special Inspections and Re-Inspections						...	229

**Classification of Nutrition**

	Number of children inspected	" A " Good		" B " Fair		" C " Poor	
		No.	%	No.	%	No.	%
Nursery Schools ...	655	348	53.13	289	44.12	18	2.75
Nursery Classes ...	346	148	42.78	190	54.90	8	2.32

**Treatment of Minor Ailments**

The following cases of children under school age were treated at the various clinics during the year :

No of defects treated in clinics and at schools and classes ... 4,422

**Treatment of Defective Vision and Squint**

Errors of refraction (including squint) ...	...	...	...	10
No. of pupils for whom spectacles were prescribed ...	...	...	...	6



**Dental Inspection and Treatment**

No. of pupils inspected by the Dentist—						
Periodic Inspections						...
—Special Inspections						...
TOTAL						...
						...
						728
						61
						789
No. found to require treatment						...
No. actually treated						...
Attendances for treatment						...
Extractions of temporary teeth						...
Fillings of temporary teeth						...
Administrations of general anaesthetics for extractions						...
Other operations on temporary teeth						...
						382
						208
						231
						249
						11
						127
						212

**Medical Treatment of the Pre-School Child**

Eye Diseases	...	...	...	...	...	35
Ear Diseases	...	...	...	...	...	57
Skin Diseases	...	...	...	...	...	178
Minor Ailments	...	...	...	...	...	46
Aural Surgeon's cases	...	...	...	...	...	58
Eye Specialist's cases	...	...	...	...	...	71
Heart Specialist's cases	...	...	...	...	...	3
Orthopaedic Specialist's cases	...	...	...	...	...	110
Chiropody Clinic cases	...	...	...	...	...	7
Skin Consultant's cases	...	...	...	...	...	41
Enuretic Clinic cases	...	...	...	...	...	11
T.B. Contact cases	...	...	...	...	...	147
Various	...	...	...	...	...	460
						1,224

**ORTHOPAEDIC AND POSTURAL DEFECTS**

A.L.S.

The arrangements with the Regional Hospital Board whereby Mr. K. H. Pridie and Mr. D. M. Jones attend one session per week each at the Central Health Clinic have continued throughout the year. This is a very satisfactory arrangement and children who are in need of advice on being referred by one of the school medical officers, or after discharge from hospital, are seen after a very short waiting time. There is no waiting list, except that occasioned by the need to advise the general practitioner of a proposal to refer the child for consultant advice. The great majority of general practitioners are quite happy for the reference to be made provided that proper reports are sent to them of the result of the examination, and this is done. There is still some slight difficulty about children who are discharged from Winford Orthopaedic Hospital and are seen as out-patients for follow-up at the Bristol United Hospitals, but with better collaboration between the record clerks of the hospitals and this Authority, which is now forthcoming, this difficulty is diminishing. An advance made during the year was the arrangement for Mr. H. K. Lucas, Consultant Orthopaedic Surgeon, to visit South Bristol School for Delicate and Physically Handicapped Children, and the Claremont School for Spastic Children once each term to the two schools. This service is paid for by the Local Authority and the advice given by Mr. Lucas is most valuable. Some of the cases that he sees are of course his own patients, but others are patients of other orthopaedic surgeons and there is perhaps some advice which should be given to the Authority from the educational point of view. In some instances Mr. Lucas can assist the orthopaedic surgeon in whose care the child is by advice about the school conditions, and this he freely does. In the case of children at the Claremont School in



some instances it is possible for Mr. Lucas to give help by suggesting suitable appliances. In general, however, appliances are kept to the minimum at this school and his help is more of an academic and progress estimating nature. The conferences which he has with the medical officers of the schools and the nursing staff are often of a most fruitful nature and will go a long way in establishing that sort of friendly co-operation between clinical services and the School Health Service about these physically handicapped children. The numbers of children seen at the Orthopaedic Clinic during the year are almost the same as last year with perhaps a slight decline in the number of minor disabilities seen. There has never been a time when there have been so few cases of tuberculous bones and joints, there being only one case of a child under fifteen with this disability. Rickets seems to have almost entirely disappeared, there being no case under treatment during the year. The details of the children seen at the Clinic during the year are as follows :—

	<i>Age five years and over</i>	<i>Age under five years</i>
Paralysis (a) Flaccid ... ..	56	6
(b) Spastic ... ..	36	2
Tuberculosis of bones and joints ...	1	—
Congenital abnormalities of bones and joints ... ..	34	8
Amputations ... ..	5	—
Rickets ... ..	—	—
Genu valgum ... ..	30	34
Various (flat foot, spinal curvature, etc.)	590	67
	<hr/> 752	<hr/> 117

## PHYSICAL EDUCATION

J. McA. Milne

The extension of the less formal approach to the teaching of physical education is undoubtedly resulting in the continued improvement in the standard of work generally. Most of the primary schools in the City are now provided with some type of climbing apparatus and this has contributed largely to the improved standard. The splinter proof floors provided in a number of new schools allow the children to work in bare feet and this has helped to overcome in many cases the difficulty of unsuitable footwear.

Three new secondary schools with first-class gymnasia and ancillary accommodation were opened at the beginning of September. Playing fields adjoin the schools and undoubtedly increase the value of the organised games period. These schools make full use of the fields not only during the organised games period but also during the mid-day break and after school hours.

Swimming is becoming so popular that it is with great difficulty that accommodation is being found for this important branch of physical education. Next year we hope to improve this feature by the opening, for secondary schools, of the bath which has been taken over from Muller's Orphanage. The following figures give an indication of the progress in swimming made by children in the schools in the City.

	<i>Corporation Swimming Certs. (4 lengths)</i>	<i>No. of school leavers unable to swim</i>
1954	3,850	381
1953	3,068	475

The Schools' Cricket Association had its best season since the war, winning all the inter-city matches played.

During the year a new voluntary organisation was initiated and the Bristol Schools' Basketball Association was formed. A cup competition in which fifteen schools participated was held, and following this a Schools' League Competition was started. In addition a Teachers' Basketball Association has been formed and has played numerous matches with the adjoining service organisations and various other basketball clubs.

The playing field acreage continues to grow with the building of new secondary schools and the cinder track which has been under construction at Greenway Secondary Modern School is almost completed.

A number of teachers' refresher courses were held during the year; these have included cricket coaching leading up to the examination for the M.C.C. Coaching Certificate, a swimming course in conjunction with the Western Counties Swimming Association, a diving course, a soccer training course, a physical education course for primary school teachers and a folk dance course. In addition a mountaineering course was held with the co-operation of the Central Council of Physical Recreation and this has resulted in a Mountaineering School being opened in Bristol.

Miss M. Cadel, the All England Women's Hockey Association Coach, visited Bristol at the beginning of November and gave valuable coaching to a number of the girls' schools.

Rounders and netball tournaments were held in the City and proved very successful.

Only a small number of schools include camping as part of the curriculum, but this number is gradually increasing and a number of teachers attended the camp course organised by the Ministry of Education.

The voluntary organisations continue to be very active in the field of major games, particularly swimming, association football, cricket, rugby football and athletics, and opportunities for taking part are given for all children who show ability in any branch of physical education.

## PSYCHOLOGICAL SERVICE

R. V. Saunders

There were no changes of psychological staff during 1954, and each psychologist has continued to work with substantially the same group of schools, except that a few changes were made at the end of the year in order to equalise numbers as far as possible. It is now apparent that the four single-psychologist groups are tending to merge into two two-psychologist "parishes" (described for convenience as "North" and "South"), each being served by one man and one woman, the latter usually dealing with secondary girls' schools and the former with the secondary boys' schools, while primary schools continue to be dealt with according to a more strictly geographical allocation.

The year's work was distributed as shown in the following table (1953 figures shown for comparison) :—

	1954	1953
Examinations—Child Guidance Clinic Cases ...	357	317
Psychological Assessments, other than C.G.C. Cases	791	849
Juvenile Court Reports by Psychologist only ...	99	120
Treatment/Coaching Interviews by Psychologists ...	1,036	1,051
Parent Interviews by Psychologists ...	190	163
School visits regarding C.G.C. Cases ...	100	59

Waiting lists for psychological visits continue to be too long and it seems impossible to avoid the impression that, if more psychologist time were available, more visits could be made to schools which need the service, but have not had sufficient personal contact with it in the past to make adequate use of it. This is important both for general mental health reasons and also because it is not yet certain that the full extent of the educationally subnormal school population is known, or that many E.S.N. children are being discovered as early as one would wish from the point of view of taking adequate therapeutic action.

The psychologists have continued to assist Spastic and Hearing Assessment Clinics, Nursery Schools and Nursery Nurses' Training Centre, and the Children's Department. A psychologist assists the recently established Asthma Clinic. Two psychologists gave lectures to a Home Office residential course for approved school staffs, and lectures have been given to student groups, parent teacher associations and a number of foreign visitors.

One psychologist attended a course in Rorschach testing and one a course on testing very young children. The whole team should benefit in the long run from these courses and we are grateful to the Education Committee for enabling us to improve our technical ability in these ways.

We are glad, as always, to acknowledge that the past year has been one in which we have been greatly helped by the friendly co-operation of colleagues in many different services.

## **SPEECH CLINICS**

### **Southern Area**

Kathleen Coleman

Work has continued steadily throughout the year in the Southern Area. As in the last two years, the outstanding feature has been the progress made in developing the method of treatment of stammering. This has brought to notice the difficulty caused by well meant advice given to many young stammerers. These children are frequently told "to take a deep breath" when they think they are going to stammer. The result is to increase the existing tension by adding to it and forms a habit which is difficult to eradicate. Nearly all the 38 new cases of stammering this year have acted on this advice, which produces tension different in nature from that of the stammer and is greatly handicapping the work of the clinic.

Although it is generally considered doubtful whether any real advantage is gained from daily treatment, we have found in certain cases that it is of great help. It is not usually necessary for more than three weeks and the heads of schools have found that despite the frequent absences, the child's work improves and daily treatment does not cease until this has been achieved.

Although there have been more new cases of speech defect, more attendances have been devoted to stammerers, including those of the "follow-up" clinic.

The work at Claremont School for Spastics has now passed to the Northern Area and is being dealt with by Miss Hutton.



The Clinic held at Granby House fills a very real need and it is hoped soon to arrange an extra session each week to deal with the increased work. There has been very little work in the Knowle area this year.

The following details of some unusual cases found during the course of the year may be of interest :—

*Tony* aged eleven years came to the clinic with a severe stammer and a history of behaviour problems having made himself known to the police, apart from his activities in stealing a purse and being banned from a cinema for ripping the seats. As all appointments for the Child Guidance Clinic had met with a polite reason why they could not be kept, after much consideration and with some misgivings we decided to "have a go."

With a break of ten days for holidays, Tony came daily for six weeks in August and September. At the first session it took one and a half hours to achieve any degree of relaxation, but this gradually improved. Tony broke away from "the gang" and found new interests. During the fourth week he stole several items from the Clinic, but at the same time his mother reported a great improvement at home and said he was "a different boy." Among his other difficulties was the fact that his step-father would not speak to him or allow clothes to be bought for him and Tony did much to try and put this right. Following an accident, it was possible to get him to convalescent home for four weeks. This, combined with four weeks in hospital, gave him eight weeks break from home. When he was very ill at first he stammered badly, but soon regained his control and his face tension smoothed out. When he returned from the convalescent home he was more confident in manner, completely easy in speech and felt well able to accept the hostility at home.

*Patrick.* It was five years since Patrick first appeared at the Clinic, but his stammer had not improved and was severe.

It is exceptional to take a child twice daily but this was arranged for three weeks, after which Patrick felt he no longer needed help from the Clinic as his speech was smooth. Despite so much absence from school, Patrick's work had improved, as had his general confidence and behaviour.

*Helen's* speech was as mixed as ever after taking her at school for four years. As she appeared intelligent apart from speech, daily treatment was decided on. In a fortnight the whole speech pattern had cleared and four different sounds had been corrected and were being used in speech.

#### Statistics 1954

No. of cases commenced treatment	...	...	...	...	95
No. of cases discharged	...	...	...	...	94
No. of cases "resting"	...	...	...	...	18
No. of cases in attendance 31st December	...	...	...	...	24
No. of cases being followed up	...	...	...	...	40
No. of attendances during the year	...	...	...	...	1,591
No. of cases treated during the year	...	...	...	...	137

#### *Types of cases in attendance 31st December, 1954*

Stammer	...	...	...	8
Dyslalia	...	...	...	8
Aphasia	...	...	...	4
Idioglossia	...	...	...	2
Cleft palate	...	...	...	2
				—
				24
				—



**Northern Area**

E. N. Hutton

Miss G. V. Steer resigned her appointment at the end of August and I took over the work in this area on 1st September. Due to the co-operation of the relative authorities, the change-over took place with only a very short break in treatment of patients.

Weekly clinics have continued at Portway Health Clinic and Southmead Health Clinic and three half-sessions per week have been spent at Claremont School for Cerebral Palsied Children. Due to the increase in the number of children at Claremont requiring therapy it is hoped early in the new year to spend three full sessions a week there.

Many children who have been under observation during the past year for retarded speech development have been discharged having developed satisfactory speech. Most of these children only required a few treatment and/or play sessions. Their parents were advised about helping them at home and, as far as possible, speech was allowed to develop along natural lines. With these children it is not advisable to force pace of development. Their confidence needs to be built up and a spirit of independence engendered. It has been found that where there is no anatomic or physiological disorder present most cases of retarded speech development have parents who are either over indulgent and anticipate the child's slightest need, or parents who demand far too high a standard from their children.

The following details of some unusual cases seen during the year may be of interest.

*E.F.* aged nine had had a harelip and cleft palate. These had been successfully repaired. She attended for speech therapy for some years and although eventually able to speak without trace of a defect when she came to clinic, made no effort to use good speech in everyday life. However, some boys teasing her about her speech upset her to such an extent, that she decided she had better do something about it ! Within five weeks, the habit of using clear speech all the time was established and she was discharged from the clinic.

*B.J.* aged eleven had speech of a superior standard, but this was marred by an ugly lateral lisp. He was keen to have this put right and he learnt to say an acoustically correct "s" and "sh" within five minutes. At first he was afraid to use these sounds in everyday speech as he felt rather self-conscious about it. However, he gained confidence and within a very few weeks was using the correct sounds continually in conversational speech.

*B.W.* aged three and a half developed a severe stutter and breathing difficulties for no apparent reason. When it was discovered that the cause of the difficulty was an elder sister, B and family were referred to the Child Guidance Clinic. It is felt that as the various family difficulties clear up B's speech and breathing troubles will disappear.

**Statistics 1954**

No. commenced treatment ... ..	61
No. discharged ... ..	99
No. in attendance 31st December ... ..	74
No. of attendances during the year ... ..	1,760
No. treated during the year ... ..	173

*Types of cases in attendance 31st December, 1954*

Stammer ... ..	17
Dyslalia ... ..	26
Dysarthria ... ..	5
Resting ... ..	26

## TUBERCULOSIS

### Contact Clinic

Mary D. Gibson

The only change in the working of the T.B. Contact Clinic during 1954 has been that the clerical work of the Clinic has been transferred to the Chest Department. This has made the correlation of the preventive B.C.G. work with that of the Contact Clinic much more effective.

The delay between the notification of the primary case of tuberculosis and the examination of child contacts has continued to be anything up to three weeks. It is hoped however, in the near future, to cut this down to a maximum of ten days by starting a weekly session to which the chest clinic nurses will refer children direct on their first visit to the home.

Cases referred by school medical officers and other sources will continue to be seen on the week following receipt of the request for examination.

Number of attendances in 1954 : 1,280.

Number of children seen for first time in each year since this clinic started :—

1950	1951	1952	1953	1954
60	121	139	177	242

Number of contact cases with negative tuberculin skin tests, who received B.C.G. vaccination in 1954 was 751.

### B.C.G. Vaccination of Thirteen-year-old School Children

A. M. McFarlan

Under a scheme approved by the Ministry of Health, B.C.G. vaccination of thirteen-year-old school children was started in the summer of 1954. The consent of parents was obtained on a form distributed to them by Heads of Schools with a letter from the Medical Officer of Health explaining the procedure.

In three schools a jelly patch test was performed and children who did not react to it were retested with P.P.D. (10 T.U.) intradermally. A few children who had not reacted to the jelly were found to react to the intradermal test ; the proportion of children reacting to the jelly test was low (15 per cent) so that the preliminary jelly test did not reduce the number of intradermal tests so much as had been expected. It was therefore decided to use only the intradermal test and so reduce the number of visits to each school. Non-reactors were vaccinated with B.C.G. when the intradermal tests were read. Eight weeks later, or after a longer interval when school holidays intervened, a further test with P.P.D. was done and the result recorded along with the local reaction to the vaccination. Letters were sent to parents whose children reacted to the preliminary test explaining that vaccination was unnecessary and to the parents whose children were vaccinated informing them about the usual reaction and telling them to refer the child to a clinic medical officer if there should be any anxiety.

The offer of vaccination was accepted for 65 per cent of 1,558 children in 14 schools before the end of 1954. The acceptance rate varied from 43 per cent in one school to 92 per cent in another and was between 60 and 80 per cent in ten schools.

The percentage of reactors in 904 children tested was 17. In eleven schools the percentage was between 10 and 20 and the extremes were 7.6 and 36.1 in two schools where the numbers tested were small.

By the end of the year 750 children had been vaccinated. No untoward results were reported and local reactions were found to be satisfactory when examined at the time of the post-vaccination test. These intradermal tests in 182 children showed that 97 per cent had been successfully vaccinated.

B.C.G. vaccination of thirteen-year-old school children has therefore been satisfactorily begun. The low percentage of reactors in children of that age is a strong argument in favour of the use of the vaccine in Bristol and a further argument is provided by the fact that notifications in the fifteen to nineteen age group increased in 1954 over the previous year's figure and have not declined in recent years although the total notifications have done so. With the co-operation of teachers and parents it should be possible to increase the acceptance rate in future. The results so far show that there are many children in need of protection before they leave school and that the vaccination has no ill effects. It can be expected to contribute materially to the control of tuberculosis in young adults in the next five or ten years.

## Mass Radiography

E. Evelyn Mawson

The arrangements for the mass radiography of children due to leave school were continued during the year and 4,347 children were X-rayed through the Mass Radiography Service. The details of the cases are given below.

Summary	Boys	Girls	Total
Miniature films ... ..	2,141	2,206	4,347
Recalled for large films ... ..	112	87	199
Normal large films ... ..	73	46	119
Did not attend ... ..	—	—	—
Significant cases ... ..	37	32	69
Under observation ... ..	2	9	11

### *Analysis of significant cases*

Of the significant cases, 34 were found on clinical examination to have non-tuberculous conditions as set out below.

Condition	Male	Female	Total
Bony abnormality ... ..	4	4	8
Bronchitis and emphysema ... ..	2	1	3
Bronchiectasis ... ..	10	9	19
Pleural thickening ... ..	1	—	1
Pulmonary fibrosis following pneumonia ...	1	—	1
Spontaneous pneumothorax ... ..	1	—	1
Diaphragmatic hernia ... ..	1	—	1
	20	14	34



The remaining cases were found to have varying degrees of tuberculous conditions and were dealt with as follows :—

Condition				Disposal			
	Boys	Girls	Total	No Action	Dr.	Disp.	San.
<i>Active</i>							
Active primary lesions ...	1	4	5	—	—	4	1
Post-primary unilateral ...	1	1	2	—	—	1	1
Post-primary bilateral ...	1	1	2	—	—	—	2
Tuberculous pleural effusion	—	—	—	—	—	—	—
<i>Inactive</i>							
Inactive primary lesion ...	13	9	22	15	—	7	—
Inactive post-primary lesion	1	3	4	3	—	1	—
<b>TOTAL ...</b>	<b>17</b>	<b>18</b>	<b>35</b>	<b>18</b>	<b>—</b>	<b>13</b>	<b>4</b>

### X-ray of Teachers and Other Staffs

A.L.S.

The question of the arrangements for the chest X-ray of teachers and others coming in contact with school children, which was referred to in Ministry of Education Circular 248, has been under consideration for some time. Discussions have taken place with the Teachers' Consultative Committee, who agreed the desirability that facilities for chest X-ray should be offered to all teachers, and it was finally decided to make arrangements for appointments to be offered for chest X-ray to all teachers on the Authority's staff who wished to take advantage of these facilities. Arrangements were made for the use of the X-ray apparatus at the Central Health Clinic, and a start was made by offering appointments to a number of teachers at a Saturday morning session. The resulting attendance was however disappointing, only 38 acceptances being received from seven schools with a total teaching staff of 167. Of these 38 to whom appointments were sent, only 25 actually attended. It is realised of course that most teachers have other commitments on Saturdays and, in view of the poor response obtained, it was decided to alter the arrangements and offer appointments on week-day sessions. Arrangements were made for one teacher from each of a number of schools to be invited at each session so as to disturb the work of the schools as little as possible. Six one-hour sessions were held in successive weeks and up to the end of the year 147 teachers had been X-rayed. Large films were taken in 12 cases, and in two of these, pathological states were discovered which were the results of previous attacks of disease and of which the teachers themselves were aware. The changed conditions of modern times and the occupational risks involved render it desirable that all such conditions should be under periodic review by the chest physicians and the teachers concerned have accepted this advice. The confidential nature of the reports is maintained and the general practitioner is advised on all matters of interest concerning the health of the teacher.

Apart from this scheme two teachers have been found during the year to have pulmonary tuberculosis and appropriate steps to exclude them from duty were at once taken.



## School Meals Staff

Arrangements have also been made for the staffs of the school kitchens and canteens to be X-rayed through the Mass Radiography Service. The aim is to have all the members of the staff X-rayed at intervals of not more than a year. During the year 252 members of the staff were examined and among these 3 were found to have symptoms which were appropriately dealt with.

## YOUTH EMPLOYMENT DEPARTMENT

### The Employment of Handicapped Children

B. M. Dyer

The Youth Employment Department gives advice on careers and help in finding employment to all boys and girls up to the age of eighteen. Talks on "How to Choose a Career" are given to boys and girls approaching school leaving age and during their final term they are interviewed, with their parents, by an officer of the Department to help them to decide on the occupation for which they are best fitted, the Head, who is also present, having previously supplied confidential reports giving information regarding general ability, attainments and aptitudes. Details concerning health are provided by the school doctor who, where appropriate, indicates the working conditions which should be avoided.

In dealing with the handicapped, conventional guidance techniques are adapted to meet their individual needs. It is impossible to generalise even about those who have the same disability for there will be wide differences in temperament, interests and working potential. Each must, therefore, be regarded as having a personal problem to which the solution is to be sought. Talks on broad lines, as given to secondary modern pupils, would be of little value to those attending special schools, but informal chats on starting work have been enthusiastically received by groups of educationally sub-normal youngsters. They show a keen interest in their future and welcome the opportunity to hear about jobs within their scope. At this, their first meeting with the specialist officer, the foundations of a friendly relationship which will last several years are established. This is important because unless the child's trust and confidence can be won, advice will not readily be accepted.

During the past twelve months—in Bristol virtually a period of full employment—the vast majority of the mentally handicapped and physically disabled leavers were quickly placed in jobs and settled down remarkably well. Of the older boys and girls who became unemployed, few were out of work for more than a fortnight, many finding employment again almost immediately.

Inevitably there have been difficult cases and a great deal of time was spent over them, each child receiving constant attention for several weeks before a suitable opening was found. In certain industries the demand for young persons has far exceeded the number available so consequently the handicapped have not always had to face competition from their more fortunate fellows. As favourable working conditions and sympathetic understanding are as important as the actual job, the specialist officer has on many occasions visited firms to discuss the difficulties involved before arranging an interview. It has been found that where employers approached in this manner engage an applicant they take a great interest in his welfare and progress.

During the course of the year 29 boys and 16 girls were accepted for registration under the Disabled Persons (Employment) Act. Of those on the register 35 were assisted in obtaining posts, three girls and one boy being placed twice.

Good use continues to be made of the facilities offered by the Ministry of Labour's Industrial Rehabilitation Unit to which 15 boys and 5 girls were admitted this year. Some had experienced difficulty in adjusting themselves to industrial conditions ; others, owing to long illness, needed toning up before making a fresh start, and two boys, who it was thought might not easily meet the demands of adult life, went straight from school. There is no doubt that all derived real benefit from their period at the unit, increased confidence being most marked, and thanks are due to the officers who, in spite of a heavy programme, found time to interview many of the parents, enlisting their co-operation and helping them to understand their children's problems. Two boys with dual handicaps had their courses prematurely terminated as did one girl whose health was unsatisfactory. An application made by a boy with severe epilepsy was rejected. One girl on completion of her course was recommended for vocational training in shorthand and typewriting.

Regular visits are made to the Occupation Centre, where those who it is thought may be capable of working are interviewed with their parents. Some are not fitted to attempt employment but others have succeeded in retaining simple labouring jobs. One boy who failed twice has kept his third position for several months—the employer stating that he finds the lad willing and reliable. A deaf and dumb boy from the Centre was given a day's trial at the Industrial Rehabilitation Unit but it proved impossible to convey instructions to him.

The year has not been without its disappointments. An intelligent boy with excellent manual dexterity who suffers from haemophilia was, with his doctor's approval, accepted by Remploy Ltd. for training in pearl and bead embroidery which he could undertake at home. To accustom him in the use of a needle the after-care-worker of the Crippled Children's Society agreed to instruct him in tapestry work, and all thought the solution to his problem had been found. The arm movements involved, however, were too much for him and the plan had to be abandoned. His case has now been referred to the Welfare Services Department. Fortunately there are very few young people who are so severely disabled that no occupation can be obtained for them.

Reports on the work of the Department in this field have attracted wide attention, various other Authorities requesting further information on methods, or sending representatives to discuss and observe practice in this highly important work. The development of the service available for the handicapped is the constant concern of the Youth Employment Sub-Committee and the officers of the Department.

## **After-care of Handicapped Children**

Ella P. Young

Work during 1954 has emphasised the need for concentrated after-care of the small proportion of the school leaving population who are potentially difficult : the backward, physically handicapped, emotionally disturbed or deprived children for whom adolescence is a particularly

painful experience. Children referred for supervision have reached various levels of maturity and there are vast differences between one sixteen-year-old and another, in size and physical development, and in approach to the problems of life as an adult. Not only has the adolescent to contend with personal problems of physical and emotional development, but also with the attitude of his parents to his changing status. Many parents are reluctant to recognise that this change is taking place and are diffident or unwise about allowing their boys and girls to experiment and test their own powers of judgement. This is particularly so in the case of those who have a handicapped or difficult child. An important part of after-care work in the last year has been the time spent with parents, discussing this problem. It seems that one function of the social worker in an Education Department is to give parents a practical interpretation of the potential of their backward or difficult child. Parents often feel rather mystified by the special attention that such children have had in school, although few fail to thank teachers for the great benefits that have been derived, and few lack some feeling of responsibility for the future of the "special" child. Just as teachers have used the results of psychological testing as pointers in their work with individual children, most parents can use a practical interpretation of these results when the child leaves school and relies entirely on parental guidance and discipline. It is not enough to give parents an idea of mental age—this is an abstraction which is of little use by itself in a practical situation. The parents of an attractive "sophisticated" and physically mature sixteen-year-old daughter may find it disastrous to take literally the advice that she has a mental age of about twelve. The concept of individual emotional and physical development is usually of more help in deciding what line to take in, for example, the "boy friend" problem. A great deal of information about each child is gathered during his or her school career and it is important that the value of this should not be lost.

The accompanying figures show that the case load is now 175. This is very much too large for case work standards to be maintained. On the whole, most of the educationally sub-normal boys and girls referred make a good adjustment to working life. The more difficult backward children are usually referred on leaving school to the Mental Health Department for statutory supervision under the Mental Deficiency Acts, as they are more likely to require statutory care. Special schools after-care has only the power of persuasion.

The most difficult cases dealt with during 1954 were disturbed children with behaviour problems, and epileptics. The adolescent epileptic who has outbreaks of violence is fortunately rare, but the one or two we have met are extremely difficult to deal with. In two cases the parents have refused to acknowledge the danger although they are fully aware of it, and repeatedly request that their sons should have normal working and social lives. In another case, where the parents are wiser, no solution to the problem has yet been found. The colonies have waiting lists and have limited facilities for dealing with these boys. Parents are reluctant to send a young boy to mental hospital when for a large part of the time he is relatively normal. The behaviour and personality problems of some epileptics undoubtedly make life harder for them, even if they can, in spite of fits, hold down a job. An example of the difficulties that a case of this kind can present is given below.



*John.* This difficult epileptic boy was placed in employment with a firm of market gardeners. He did quite well in spite of occasional outbursts of temper in which he would lay about the nearest person. At the end of two years he was sacked after an extremely violent attack on his supervisor. His parents have always had to protect him from himself and have covered up previous outbursts as much as possible. It has not been easy to get to know the mother and visits have been formal and rather unprofitable until shortly before the last episode when she confided her anxieties. Fortunately she felt able to get in touch with the after care officer immediately the trouble occurred, and the employer was visited. At present this boy cannot be placed in a job, and the officer has asked the Welfare Services Department to help by providing some kind of diversional occupation for the boy.

### *James Wykeham Youth Club*

The development of the James Wykeham Youth Club has shown that group work may help an after care scheme considerably. During the past year a flourishing boys club has been formed by Mr. Perry, a master at Russell Town Special School. This meets two nights a week and offers opportunities for further reading. Membership is by invitation only and numbers are about 30 per evening, with several skilled helpers including a Youth Employment Officer. Each boy can be sure of individual attention, and several "unclubbable" boys attend quite regularly. The girls' club meets once a week and joint socials are held from time to time. Although by no means all those on the visiting list are introduced to this club, it has been the means of providing social activities for a good many difficult boys and girls. Whenever possible, ordinary youth clubs are recommended, and we hope that most of the James Wykeham members will in time graduate to their own local clubs. Every effort is made to avoid publicity which might label the club as "daft" and several solitary children of normal intelligence have used it as a stepping stone to larger unspecialised clubs.

### *Boys and Girls Referred in 1954*

					<i>Girls</i>	<i>Boys</i>	
Educationally sub-normal	...	...	...		39	33	
Physically handicapped	...	...	...		14	5	
Difficult children—not educationally sub-normal or physically handicapped	...	...	...	...	...	...	4
Total referrals	...	...	...	...	...	...	84

In addition to this year's cases the following are not yet terminated:—

					<i>Girls</i>	<i>Boys</i>	
Educationally sub-normal	...	...	...		18	44	
Physically handicapped	...	...	...		20	9	
Total	...	...	...	...	...	...	91
Number of cases at present	...	...	...	...	...	...	175





## SCHOOL CLINICS

<i>Name of Clinic</i>	<i>Address</i>	<i>Clinics Held</i>
Central Health Clinic.	Tower Hill, Bristol 2. Tel. 2-6602.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic, Orthopaedic, Aural and Dermatological Consultant Clinics, Chiroprody Clinic, Enuretic Clinic, Artificial Sunlight Clinic, Tb Contact Clinic, Children's Chest Clinic.
Bedminster Health Clinic.	Wedmore Vale, Bristol 3. Tel. 6-3798.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Granby House Clinic.	St. John's Road, Bedminster. Tel. 6-4443.	Minor Ailment Inspection and Treatment.
Speedwell Health Clinic.	Whitefield Road, Speedwell, Bristol 5. Tel. 7-3194.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Portway Health Clinic.	Shirehampton, Bristol. Tel. Avonm'th 90.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Southmead Health Clinic.	Monks Park Ave., Southmead, Bristol. Tel. 62-6414.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment. Ophthalmic and Aural Consultant Clinics.
Brooklea Clinic.	Wick Road, Brislington. Tel. 7-8861.	Minor Ailment Inspection and Treatment. Dental Inspection and Treatment.
Knowle Health Clinic.	Broadfield Road, Bristol 4. Tel. 7-6292.	Minor Ailment Inspection and Treatment.
Lawrence Weston Clinic.	Ridingleaze, Lawrence Weston. Tel. Avonm'th 205.	Minor Ailment Inspection and Treatment.
William Budd Health Centre.	Leinster Ave., Bristol 4. Tel. 6-1112.	Minor Ailment Inspection and Treatment.
Connaught Road School Clinic.	Connaught Road School, Bristol 4.	Minor Ailment Treatment.
Verrier Road Clinic.	Verrier Road, Redfield. Tel. 5-6387.	Minor Ailment Treatment.
Child Guidance Clinic.	7 Brunswick Sq., Bristol 2. Tel. 2-6181.	
Speech Clinics.	1 Argyle Road, St. Paul's, Bristol 2. Tel. 2-6760 and Knowle Health Clinic.	

**STAFF****Principal School Medical Officer and Medical Officer of Health**

R. H. PARRY, M.D., F.R.C.P., D.P.H.

**Deputy Principal School Medical Officer and  
Deputy Medical Officer of Health**

R. C. WOFINDEN, M.D., D.P.H., D.P.A.

**Senior Medical Officer School Health Service**

A. L. SMALLWOOD, M.D., D.C.H., D.P.H.

**School Medical Officers**

(Joint Appointments with the Local Health Authority)

Mrs. Monica A. Pauli, M.B., Ch.B., B.A.O.

R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H.

Mary Gibson, M.B., Ch.B., D.P.H.

A. M. Fraser, L.R.C.P., L.R.C.S., D.P.H.

B. J. Boulton, M.B., Ch.B.

Clara Jahoda, M.D., (Vienna)

Helen M. Gibb, M.B., Ch.B., D.P.H.

J. E. Kaye, Med. Dip. (Warsaw), D.P.H.

S. W. Terry, M.B., B.S., D.T.M.&amp;H., D.P.H.

J. L. S. James, M.R.C.S., L.R.C.P. (Anaesthetist)

Kathleen E. Faulkner, M.B., Ch.B., D.C.H., D.P.H.

D. J. Sheerboom, M.B., B.S., (from 1/4/54)

R. B. Walker, M.R.C.S., L.R.C.P., D.P.H. (from 1/10/54)

**Part-time School Medical Officers**

H. F. M. Finzel, M.D., B.S., M.R.C.S., L.R.C.P.

C. Jean Fraser, M.B., Ch.B., D.P.H.

**Consultants—Part-time**

Ear, Nose and Throat	...	...	G. R. Scarff, M.B., Ch.B., F.R.C.S.(E.) H. D. Fairman, F.R.C.S.
Orthopaedic	...	...	K. H. Pridie, M.B., B.S., F.R.C.S. D. M. Jones, M.B., B.S., F.R.C.S., M.Ch. (Orth.) H. Keith Lucas, M.Ch. (Orth). F.R.C.S.
Ophthalmic	...	...	R. R. Garden, M.A., M.B., D.O.M.S., D.P.H. R. L. M. Stewart, M.B., Ch.B.
Cardio-rheumatic	...	...	C. Bruce Perry, M.D., F.R.C.P.
Dermatology	...	...	R. P. Warin, M.D., M.R.C.P. C. D. Evans, B.A., M.B., B.Ch. (Camb.)
Chiropody Clinic	...	...	L. I. W. Tasker, M.Ch.S.

### Dental Surgeons

(Joint Appointments with the Local Health Authority)

Principal School Dental Officer	...	W. H. B. Stride, L.D.S.
School Dental Officers	...	Mrs. Marion Bentz, L.D.S. (to 17/7/54)
		A. H. V. Williams, L.D.S.
		H. W. Williams, L.D.S.
		Alice M. Trump, L.D.S.
		Helena Blinkworth, L.D.S.
		R. D. Hepburn, L.D.S.
		J. D. Rees, L.D.S. (to commence 3/1/55)
		G. W. Vowles, L.D.S. (part-time)
		H. Hazell, L.D.S. (part-time)

(There were four vacancies on the full-time dental staff at the end of the year)

Oral Hygienist	...	Jean E. Wells
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### Child Guidance Clinic

Director	...	R. F. Barbour, M.A., F.R.C.P., D.P.M.
Assistant Psychiatrist	...	Mrs. Doris E. Heron, M.R.C.S., L.R.C.P.
Senior Registrar (Psychiatry)	...	W. L. Walker, M.B., Ch.B., D.P.H., D.P.M.*
Senior Psychologist	...	R. V. Saunders, M.A., B.Ed.
Psychologists	...	Pamela Regan, B.Sc.
		C. J. Beedell, B.Sc.
		Eleanor J. Horn, M.A. Dip. Ed.
Senior Psychiatric Social Worker	...	Mrs. L. Gatliff
		Mrs. A. V. Hope (part-time) from 27/9/54
		Margaret Astley (part-time) from 1/10/54

### Speech Clinic

Speech Therapists	...	Kathleen Coleman, L.C.S.T.
		Gloria V. Steer, L.C.S.T. (to 31/8/54)
		Elizabeth N. Hutton, M.A., B.Sc., L.C.S.T.
		(from 1/9/54)

### Nursing Service

Chief Nursing Officer	...	Miss L. M. Bendall, S.R.N., S.C.M., H.V.Cert.
Deputy Chief Nursing Officer	...	Miss V. P. Bowler, S.R.N., S.C.M., H.V.Cert.

\* Appointed by Regional Hospital Board.

Persons other than those whose names appear in the list of staff who have contributed to this report are the following :—

- L. A. Tavener, *Superintendent Welfare Officer.*  
 Miss E. E. Mawson, M.D., *Medical Officer-in-Charge,*  
*Mass Radiography Unit.*  
 Miss T. B. Hetherington, *Chief Organiser of School Meals.*  
 F. J. Redstone, F.R.San.I., F.S.I.A., *Chief Sanitary Inspector.*  
 J. MacA. Milne, *Chief Organiser of Physical Education.*  
 Miss C. E. Cooke, *Senior Woman Organiser of Physical Education.*  
 L. S. F. Bone, *Head of South Bristol Open-Air School.*  
 B. M. Dyer, B.A., *Youth Employment Officer.*  
 Mrs. E. P. Young, *After-Care Officer for Handicapped Children.*



Mrs. Grace Woods, M.B., B.S., D.C.H., D.P.H., *Medical Officer,  
Cerebral Palsy Assessment Clinic and Claremont School for Spastic  
Children*

D. M. Evans, B.A., *Personal Assistant to Medical Officer of Health.*

Miss M. Sharwood, *Head of Elmfield School for the Deaf.*

Miss R. H. Sturman, *Visiting Teacher for Partially Deaf Children.*

Miss M. J. Ram, B.A., *Head of Claremont School for Spastic Children.*

A. M. McFarlan, M.A., M.B., B.Ch., *Senior Medical Officer, Tuberculosis.*

The following staff changes took place during the year :—

### **Medical**

During the year Dr. D. J. Sheerboom, M.B., B.S. (1.4.54) and Dr R. B. Walker, M.R.C.S., L.R.C.P. (1.10.54) were appointed as full time medical officers jointly with the Local Health Authority.

### **Dental**

Mrs. Marion Bentz, L.D.S. resigned her post as dental surgeon on 17.7.54 on retirement from the service. Mr. J. D. Rees, L.D.S. who was previously in the service of the Authority was re-appointed as dental surgeon and is taking up duty on 3rd January, 1955.

### **Child Guidance Clinic**

Miss C. M. Clarke was appointed as temporary social worker on 1st January, 1954 and resigned her appointment on 24th September, 1954. Mrs. A. V. Hope was appointed on 27th September, 1954 as part-time psychiatric social worker for seven sessions per week and Miss Margaret Astley from 1st October, 1954 for four sessions per week. Miss Astley is a full time psychiatric social worker appointed by the Local Health Authority and four sessions per week of her time is allocated, by arrangement, to the Education Committee.

# **STATISTICAL TABLES** **YEAR ENDED 31st DECEMBER, 1954**

**Table I. MEDICAL INSPECTION OF PUPILS ATTENDING  
MAINTAINED PRIMARY AND SECONDARY SCHOOLS**  
(including special schools)

## **A.—PERIODIC MEDICAL INSPECTIONS**

1953	Number of Inspections in the prescribed Groups :—								1954
6,022	Entrants	...	...	...	...	...	...	...	7,306
3,553	Second Age Group	...	...	...	...	...	...	...	6,108
4,234	Third Age Group	...	...	...	...	...	...	...	4,624
13,809	TOTAL								18,038
1,263	Number of other Periodic Inspections	...	...	...	...	...	...	...	2,274
15,072	GRAND TOTAL								20,312

## **B.—OTHER INSPECTIONS**

24,360	Number of Special Inspections	...	...	...	...	...	23,770
29,563	Number of Re-inspections	...	...	...	...	...	27,873
53,923	TOTAL						51,643

## **C.—PUPILS FOUND TO REQUIRE TREATMENT**

**Number of Individual Pupils Found at Periodic Medical Inspection to  
Require Treatment**

(Excluding Dental Diseases and Infestation with Vermin)

1953				1954		
For Def. Vision*	For any other condn.	Total Individ. pupils		For Def. Vision*	For any other condn.	Total Individ. pupils
48	477	519	Entrants	51	538	582
98	176	268	Second age group	141	317	439
147	147	295	Third age group	128	178	305
293	800	1,082	Total (prescribed groups)	320	1,033	1,326
36	69	101	Other Periodic Inspections	80	82	156
329	869	1,183	GRAND TOTAL	400	1,115	1,482

\* Excluding Squint.

Table II

## A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION

1953					1954			
PERIODIC INSPECTIONS		SPECIAL INSPECTIONS			PERIODIC INSPECTIONS		SPECIAL INSPECTIONS	
No. of Defects		No. of Defects			No. of Defects		No. of Defects	
Req. treatment	Req. obs. but not treatment	Req. treatment	Req. obs. but not treatment		Req. treatment	Req. obs. but not treatment	Req. treatment	Req. obs. but not treatment
53	40	3,318	88	Skin ... ..	95	37	3,658	47
329	55	1,108	125	Eyes—(a) Vision ... ..	400	69	1,139	73
31	33	39	23	(b) Squint ... ..	33	35	52	17
9	17	863	40	(c) Other ... ..	2	22	755	15
13	29	72	27	Ears—(a) Hearing ... ..	35	41	63	27
23	18	232	12	(b) Otitis Media ... ..	22	42	218	16
1	6	423	17	(c) Other ... ..	1	4	404	12
188	453	1,048	294	Nose or Throat ... ..	267	559	782	287
34	40	40	33	Speech ... ..	31	52	37	38
24	140	59	66	Cervical Glands ... ..	32	198	35	72
11	64	11	88	Heart and Circulation ... ..	24	95	19	61
104	200	248	207	Lungs ... ..	80	201	265	129
				Developmental—				
4	1	2	—	(a) Hernia ... ..	—	—	3	2
—	—	10	3	(b) Other ... ..	—	—	29	3
				Orthopaedic—				
14	39	16	38	(a) Posture ... ..	24	74	29	49
14	17	54	20	(b) Flat Foot ... ..	12	34	81	26
102	149	187	124	(c) Other ... ..	141	185	222	112
				Nervous System—				
—	2	2	1	(a) Epilepsy ... ..	2	—	4	3
4	54	37	49	(b) Other ... ..	4	67	40	38
				Psychological—				
9	7	20	20	(a) Development ... ..	9	9	18	17
—	—	11	3	(b) Stability ... ..	—	—	9	3
447	410	7,914	699	(c) Other ... ..	887	430	7,315	379

## B.—CLASSIFICATION OF THE GENERAL CONDITION OF PUPILS INSPECTED DURING THE YEAR IN THE AGE GROUPS

1 Age Groups	2 No. of Pupils Inspected	A (Good)		B (Fair)		C (Poor)	
		No.	% of col. 2	No.	% of col. 2	No.	% of col. 2
Entrants ... ..	7,306	4,158	56.91	3,009	41.19	139	1.90
Second Age Group ... ..	6,108	3,559	58.27	2,485	40.68	64	1.05
Third Age Group ... ..	4,624	2,425	52.44	2,173	47.00	26	0.56
Other Periodic Inspections ... ..	2,274	979	43.05	1,236	54.35	59	2.60
TOTAL ... ..	20,312	11,121	54.75	8,903	43.83	288	1.42
1953 TOTAL ... ..	15,072	8,127	53.92	6,650	44.12	295	1.96

Table III. INFESTATION WITH VERMIN

1953		1954
183,574	(i) Total number of examinations in the schools by the school nurses or other authorised persons ... ..	170,579
2,990	(ii) Total number of individual pupils found to be infested ...	2,773
248	(iii) Number of individual pupils in respect of whom cleansing notices were issued (Section 54 (2), Education Act, 1944) ...	346
123	(iv) Number of individual pupils in respect of whom cleansing orders were issued (Section 54 (3), Education Act, 1944) ...	104

Table IV

## TREATMENT OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING SPECIAL SCHOOLS)

## Group I—Diseases of the Skin

No. of Cases treated or under treatment during the year 1953			No. of Cases treated or under treatment during the year 1954	
by the Authority	Otherwise		by the Authority	Otherwise
—	23	Ringworm—(i) Scalp ... ..	—	27
309	1	Ringworm—(ii) Body ... ..	189	—
82	—	Scabies ... ..	33	—
562	7	Impetigo ... ..	454	2
2,952	161	Other Skin Diseases ... ..	3,288	154
3,905	192	Total ... ..	3,964	183

## Group 2—Eye Diseases, Defective Vision and Squint

No. of Cases dealt with 1953			No. of Cases dealt with 1954	
by the Authority	Otherwise		by the Authority	Otherwise
1,404	—	External and other, excluding errors of refraction and squint ... ..	1,347	—
1,301	3,219	Errors of Refraction (including squint)	1,000	3,918
2,705	3,219	Total ... ..	2,347	3,918
		Number of pupils for whom spectacles were		
649	1,532	(a) Prescribed ... ..	476	2,101
396	1,454	(b) Obtained ... ..	431	1,923

## Group 3—Diseases and Defects of Ear, Nose and Throat

No. of Cases treated 1953			No. of Cases treated 1954	
by the Authority	Otherwise		by the Authority	Otherwise
—	35	Received operative treatment ... ..	—	32
—	1,583	(a) for diseases of the ear ... ..	—	1,945
—	147	(b) For adenoids and chronic tonsillitis	—	159
803	117	(c) for other nose and throat conditions ... ..	590	113
803	1,882	Received other forms of treatment ...	590	2,249
		Total ... ..		



**Group 4—Orthopaedic and Postural Defects**

1953			1954	
207		(a) Number treated as in-patients in hospitals ... ..	235	
by the Authority	Otherwise		by the Authority	Otherwise
299	175	(b) Number treated otherwise, e.g., in clinics or out-patient departments ... ..	374	166

**Group 5—Child Guidance Treatment**

1953		Number of pupils treated at Child Guidance Clinics ...	1954	
Number of cases treated			Number of cases treated	
In the Authority's Child Guidance Clinics	Elsewhere		In the Authority's Child Guidance Clinics	Elsewhere
315	56		341	40

In addition 535 cases carried over from 1953 were seen during the year.

**Group 6—Speech Therapy**

1953		Number of pupils treated by Speech Therapists    ...    ...    ...    ...	1954	
Number of cases treated			Number of cases treated	
by the Authority	Otherwise		by the Authority	Otherwise
310	1		310	31

**Group 7—Other Treatment Given**

1953				1954	
Number of cases treated				Number of cases treated	
by the Authority	Otherwise			by the Authority	Otherwise
14,735	239	(a)	Miscellaneous minor ailments ...	11,525	221
881	—	(b)	Other (specify)		
428	32	(1)	Chiropody Clinic ... ..	960	—
298	—	(2)	Ultra Violet Light Clinic ... ..	420	20
596	—	(3)	Enuretic Clinic ... ..	176	—
211	—	(4)	T.B. Contact Clinic ... ..	853	—
		(5)	Skin Consultant ... ..	198	—
17,149	271	Total	... ..	14,132	241

Table V

## DENTAL INSPECTION &amp; TREATMENT CARRIED OUT BY THE AUTHORITY

1953		1954
40,917	(1) Number of pupils inspected by the Authority's Dental Officers	
5,464	(a) Periodic ... ..	32,721
	(b) Specials ... ..	6,389
46,381	Total (1) ... ..	39,110
32,691	(2) Number found to require treatment ... ..	28,050
32,379	(3) Number referred for treatment ... ..	27,485
23,759	(4) Number actually treated ... ..	19,531
39,048	(5) Attendances made by pupils for treatment ... ..	35,915
313	(6) Half-days devoted to—Inspection ... ..	241
3,495	Treatment ... ..	3,426
3,808	Total (6) ... ..	3,667
13,238	(7) Fillings—Permanent Teeth ... ..	12,855
1,082	—Temporary Teeth ... ..	958
14,320	Total (7) ... ..	13,813
12,038	(8) Number of teeth filled—Permanent Teeth ... ..	11,627
1,055	—Temporary Teeth ... ..	958
13,093	Total (8) ... ..	12,585
5,727	(9) Extractions—Permanent Teeth ... ..	5,559
25,164	—Temporary Teeth ... ..	21,956
30,891	Total (9) ... ..	27,515
15,772	(10) Administration of general anaesthetics for extraction ... ..	14,367
8,295	(11) Other operations—Permanent Teeth ... ..	5,613
8,465	—Temporary Teeth ... ..	6,143
16,760	Total (11) ... ..	11,756

In addition 309 sessions were given to the treatment of mothers and young children.

## SUMMARY OF WORK DONE DURING THE YEAR

1953		1954
	School Medical Officers :—	
971	No. of Visits to Schools for Periodic Inspection ... ..	1,320
15,072	No. of Children Examined at Periodic Inspection in Schools ...	20,312
3,660	No. of Re-examinations in Schools ... ..	3,633
646	No. of Special Inspections ... ..	1,400
	Dental Surgeons :—	
40,917	No. of Children Examined—Periodic Inspections ... ..	32,721
5,464	—Special Inspections ... ..	6,389
23,759	No. of Children Treated ... ..	19,531
	School Nurses :—	
	<i>Cleanliness Survey</i>	
3,269	No. of Visits to Schools ... ..	3,421
183,574	No. of Examinations of Children ... ..	170,579
1,954	No. of Homes visited for uncleanness ... ..	1,806
3,334	No. of Homes visited for " following-up," etc. ... ..	3,637
	<i>Preparation for Medical Inspection</i>	
955	No. of Visits to Schools ... ..	1,320
17,336	No. of children prepared ... ..	22,351

## SCHOOL CLINICS

1953							1954
No. of Attend- ances	Work						No. of Attend- ances
45,474	Central Health Clinic ...	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic : skin clinic ; dental treatment ; orthodontic treatment ; refraction clinic ; asthma clinic ; enuretic clinic ; T.B. contact clinic ; treatment of scabies cases ; orthopaedic clinic ; remedial exercises ; electrical treatment ; physiotherapy ; massage and foot treatment.					43,319
6,227	Brislington Clinic ...	Inspection clinic ; treatment of minor ailments ... ..					8,889
	Bedminster Health Clinic ... ..	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic ... ..					20,423
28,165	Wm. Budd Health Centre	Inspection clinic; treatment of minor ailments					1,807
2,117	Granby House Clinic	Inspection clinic; treatment of minor ailments					7,746
4,662	Lawrence Weston Clinic	Inspection clinic ; treatment of minor ailments ; dental treatment ... ..					553
—	Broadfield Road Clinic	Inspection clinic ; treatment of minor ailments ... ..					11,312
13,200	Speedwell Health Clinic	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic ... ..					22,155
26,605	Verrier Road Clinic ...	Treatment of minor ailments ... ..					2,994
3,429	Portway Clinic...	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction clinic ... ..					15,635
20,834	Southmead Clinic ...	Inspection clinic ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment, and refraction clinic ... ..					24,180
26,256	Connaught Road School Clinic ... ..	Treatment of minor ailments ... ..					14,411
12,875	Day E.S.N. Special Schools ... ..	Treatment of minor ailments ... ..					916
992	Novers Open Air School	Remedial exercises and massage ; treatment of minor ailments ... ..					14,215
13,478	Cardio-rheumatic Clinic	Cases of heart disease and rheumatic disease					895
928	Artificial Light Clinic	Cases of debility ... ..					3,980
4,747	Child Guidance Clinic	... ..					2,780
2,486	Speech Clinics ... ..	... ..					3,373
3,461	Dental Hospital ... ..	... ..					1,177
1,210							
217,146	Total Attendances ... ..						200,760

SCHOOL NURSES

1953		1954
	Following is a summary of the Nurses' Survey for the year:—	
3,154	No. of sessions ... ..	2,978
104,681	No. of children surveyed ... ..	98,312
4,053	No. with defects ... ..	3,493
	Of the cases with defects :—	
2,990	No. referred to Doctor ... ..	2,357
358	No. referred to Doctor for Eyc Specialist ... ..	370
456	Minor ailments referred for treatment ... ..	416
240	Will attend own doctor or hospital ... ..	333
9	Refusals ... ..	17
	Total number of visits to schools in respect of verminous condition and general examination during the year ... ..	3,421
3,629	Total number of examinations made ... ..	170,579
183,574	Number of re-examinations (included in above total) ... ..	2,150
2,561		

Sunlight Clinic

During 1954, 309 children of school age and 11 children at nursery schools were given a complete course of artificial sunlight treatment. Details of the cases are given below :

Defect	Prim. Secy. and Gram. Schools			Nursery Schools		
	No. Treated	Im-proved	Station-ary	No. Treated	Im-proved	Station-ary
General debility ... ..	69	54	15	3	2	1
Bronchitis—moderate ... ..	25	23	2	1	1	—
Bronchitis—slight ... ..	9	9	—	—	—	—
Enlarged glands ... ..	5	3	2	—	—	—
Malnutrition ... ..	8	6	2	1	—	1
Miscellaneous ... ..	193	165	28	6	5	1
Total ... ..	309	260	49	11	8	3